# BROADBAND EXPANSION GRANT APPLICATION For Fiscal Year 2022

Primary Applicant (Name and Address): Pierce Pepin Cooperative Services W7725 US Hwy 10 Ellsworth, WI 54011	Applications MUST be UPLOADED to ERF via the Commission's website, <a href="http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx">http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx</a> . Refer to section 2.3 for detailed instructions.		
	Applications are due and MUST be uploaded to ERF no later than: <b>March 17, 2022</b> at 4:00pm (16:00) Central Time. <b>Late applications will not be accepted.</b>		
	Contact for further information:  PSCStatebroadbandoffice@wisconsin.gov		
	Date:		
	December 1, 2021		

The Public Service Commission of Wisconsin is seeking applications for Broadband Expansion Grants. The Commission may award one or more grants during Fiscal Year 2022 to public and private entities that meet the eligibility requirements set forth in Wis. Stat. § 196.504. This grant round will be funded with bond proceeds authorized by the Wisconsin Building Commission pursuant to Wis. Stat. § 13.48(30). As such, successful applicants are subject to the requirements of Wis. Stat. § 13.48(30). Successful applicants will demonstrate a clear and achievable plan to improve broadband communications services in one or more underserved areas in the State.

Applicant Certification: In signing this application, the undersigned verifies under penalty of perjury that the Applicant and its employees and agents have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition with respect to this application; that no attempt has been made to induce any other person or firm to submit or not to submit an application; that this application has been independently arrived at without collusion with any other proposer, competitor or potential competitor; that this application has not been knowingly disclosed prior to the opening of applications to any other applicant or competitor; that all of the responses and representations of Applicant in this application are true and correct to the best of the undersigned's knowledge, information, and belief; and that Applicant agrees to, accepts, and will comply with all of the terms and conditions respecting this application and any award of a broadband expansion grant as may be established in a grant award Agreement.

Name of Authorized Representative (Type or Print)	Title	Phone ( )
Nate Boettcher	President & CEO	715-273-2403
Signature of Authorized Representative	Date	
Note & but	March 10, 2022	

### SUMMARY OF GRANT APPLICATION

Primary Applicant Name	Amount of Broadband Grant Request (round to nearest dollar)
Pierce Pepin Cooperative Services	\$1,811,373
Federal Employer Identification No.	Amount of Matching Funds Pledged (round to nearest dollar)
39-0539446	\$2,717,059
Contact Name and Title	Total Cost of Proposed Project (round to nearest dollar)
Nate Boettcher, President & CEO	\$4,528,432
Telephone Number	Project Name
(715) 273-2403	Town of Clifton West
E-mail Address(es)	Type of Proposed Broadband Service (FTTH, Cable, DSL, etc.)
nboettcher@piercepepin.coop	FTTH
Grant Manager, if different than Primary Applicant	Type of Proposed Project (Last-mile, Middle-Mile, backbone, other)
N/A	Last Mile
Grant Manager Contact Name	Grant Manager Email Address and Telephone Number
N/A	N/A
If the condition is a second condition of the condition o	l le

If the application proposes a public-private partnership, list the names, addresses, and FEINs of the partner companies or organizations

Town of Clifton (FEIN: 39-1359699) Pierce County EDC (FEIN: 37-1222441)

Attn: Joe Rohl Attn: Joe Folsom W11705 County Rd FF 410 St. 3<sup>rd</sup> St.

River Falls, WI 54022 River Falls, WI 54022 Ph: 715-262-3744 Ph: 715-425-3881

# Brief Project Description (2 sentences)

This project will provide Gigabit symmetrical speeds to western portion of the Town of Clifton in Pierce County. This project will connect 648 locations that are largely underserved.

Maximum Proposed Download Transmission Speed 1000 Mbps (Gigabit)	Maximum Proposed Upload Transmission Speed 1000 Mbps (Gigabit)
Minimum Proposed Download Speed to Customer Location 100 Mbps	Minimum Proposed Upload Transmission Speed to Customer Location 100 Mbps
County or Counties served by this project Pierce County	Community or Communities served by this project Town of Clifton

List of the broadband service providers, if any, currently serving the an	rea the applicant proposes to serve			
Viasat, Nexterra, T-Mobile, HughesNet, AT&T, CenturyLink, LTD Broadband				
Does proposed project serve an <u>unserved</u> area of the State, as defined in <u>Section 1.4</u> of the application instruction? (yes/no)  Yes	Is the Applicant certified as a Broadband Forward! Community or Telecommuter Forward! Community, or does the grant project propose to serve a Broadband Forward! Community or Telecommuter Forward! Community? (yes/no)  No			
For last mile projects or component the expected number of Business Locations that will have access to the improved broadband service (i.e., total business locations passed or with new service access).	For last mile projects or components the expected number of Residential Locations that will have access to the improved broadband service (i.e., total residential locations passed or with new service access).  640			
Of the improved business locations, how many locations are unserved?	Of the improved residential locations, how many are <i>unserved</i> ?  640			
For providers that are eligible telecommunications carriers will the proposed broadband service be available to Lifeline customers? (yes/no) Yes	Are there any programs available for low-income households to access low-cost service or discounts? (yes/no) Yes			
Is the internet service provider currently participating in the Emergency Broadband Benefit Program? (yes/no) Yes (application pending)	Is the internet service provider currently participating in the Department of Public Instruction and CESA purchasing's Digital Learning Bridge? (yes/no)  No			
Did the internet service provider participate in the Public Service Commission's voluntary Broadband Coverage Data Collection in 2021? (yes/no) Yes				

# Summary of Project Budget

# FY22 Broadband Expansion Grant Application Budget & Income Summary



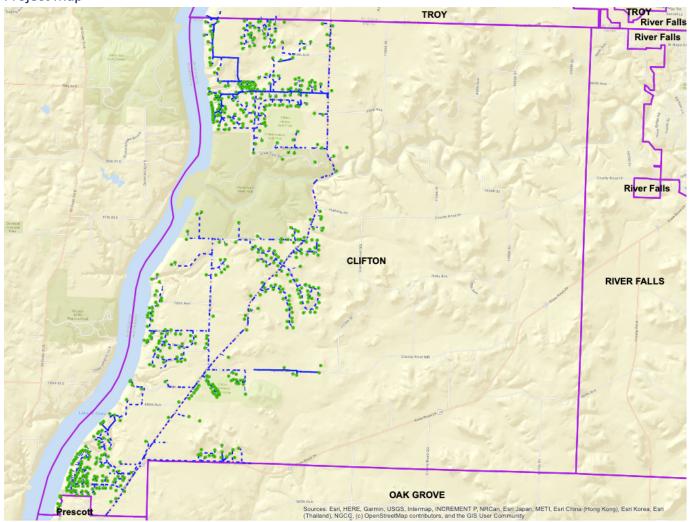
Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary				
Grant Applicant: Project:				
Pierce Pepin Cooperative Services	Town of Clifton West			

	Budget						
Line:	Description / Category:		Grant Funds:		Match:		Total:
1	Contractual, Consultant Fees	\$	1,227,958.00	\$	1,841,937.00	\$	3,069,895.00
2	Equipment	\$	558,231.00	\$	837,346.00	\$	1,395,577.00
3	Supplies	\$	-	\$	-	\$	-
4	Labor (Salary, Fringe)	\$	18,000.00	\$	27,000.00	\$	45,000.00
5	Permitting, Licensing Fees	\$	2,000.00	\$	3,000.00	\$	5,000.00
6	Travel	\$	-	\$	-	\$	-
7	Other	\$	5,184.00	\$	7,776.00	\$	12,960.00
	Total:	\$	1,811,373.00	\$	2,717,059.00	\$	4,528,432.00
	TOTAL.		6	0.09	6 match requeste	ed	

Pledged Contributions					
#:	Entity:	Entity Type:	Pledge Type:		Pledge:
1	Town of Clifton	Partner	Cash	\$	220,000.0
2	Pierce Pepin Cooperative Services	Applicant	Cash	\$	2,497,059.0
3	Pierce County Economic Development Corporation	Partner	In-Kind	\$	-
4					
5					
6					
7					
8					
9					
10					
		•	Total:	\$	2,717,059.0

# Project Map



Note: A spatial file of the project area map will be provided to the PSC as well.

# **Executive Summary**

Pierce Pepin Cooperative Services (PPCS) is a member-owned electric cooperative, dedicated to helping its members Live Better<sup>®</sup>. In the 1930's this meant providing electricity to rural areas, today this means bringing rural broadband connectivity. Nearly 90 years after rural areas had been left behind with electricity, we've repeated the same mistake with rural broadband until now.

In 2021, PPCS launched SwiftCurrent Connect, a wholly owned subsidiary to provide fiber to the home services for 5,500 homes and businesses. The PPCS board set a lofty goal of building over 800 miles of fiber by 2025. In the Spring of 2021, the WI Public Service Commission awarded two grants to PPCS to connect 475 services. PPCS utilize this foundation to expand its presence and pass by 1,500 homes and build 175 miles. Last Fall, PPCS was awarded funding to connect 2,400 homes and build 466 miles of fiber. The proposed application takes the next step in building fiber in western Wisconsin by connecting an additional 648 homes and businesses in the Town of Clifton.

Our application is supported by a public-private partnership with the Town of Clifton and the Pierce County Economic Development Corporation. Over the past couple of years, PPCS has listened to its members about the need for broadband. PPCS staff has worked closely with townships, Wisconsin counties and most importantly our members. The Town of Clifton is a great example of where the "voice of the people" carried a lot of weight. Townships are often burdened with making tough choices. In this case, the choice was between improving roads and supporting broadband. Nearly 40 residents packed the town hall, another 140 submitted comments encouraging the board to utilize their ARPA funds on broadband. For many of these residents, this is a once in a lifetime opportunity to see the digital divide finally closed. The Town board unanimously passed the resolution and provide the funds to support broadband. A thunderous applause was heard in the room that night and the hope of finally getting high-speed broadband is becoming a reality. We can only wonder if the same sort of jubilation happened when rural electric cooperatives brought needed electricity to the rural farms and homes.

If approved this project will build 75 miles of fiber optic broadband to serve the western portion of the Town of Clifton. This crucial area lies between the Hudson and Prescott alongside the St. Croix River. There are tremendous opportunities to attract new residential and industrial growth with high-speed broadband. As a border community to the Twin Cities, there is strong interest in families building homes in this area, but the lack of broadband has created stagnation. It's a diverse area filled with farm fields, world class trout streams, river bluffs, and rolling hills. This topography is a tourists dream, but it's a challenge to provide broadband service without fiber optic cable.

Upon a successful selection by the WI PSC, the project will kick off in the Fall of 2022 with project planning and any make-ready engineering work that needs to be completed. Construction will begin in the Spring of 2023 with the goal of beginning service drops by the Fall of 2023 and final completion of the project in the Spring of 2024. PPCS has selected a primary contractor to work on our current projects and we anticipate the availability of this contractor to continue through next Fall and continue our buildout of fiber into 2023.

This application represents a strong foundation of grassroots support and the commitment of the Town of Clifton to bring broadband to their community. For too long residents have suffered and idly sat by hoping that a provider would come serve their area. We have a great opportunity to work together with the Town and to ensure that every home has access to high-speed broadband. We cordially ask the Wisconsin PSC to approve our application and help bring fiber to homes and businesses in the Town of Clifton.

# 3.0 Application Narrative

# 3.2.1 Applicant identification and contact information

a. The name and address of the entity applying for the grant, and the mailing address, telephone number and e-mail address of one or more contact persons representing the applicant.

Pierce Pepin Cooperative Services W7725 US Hwy 10 Ellsworth, WI 54011

Primary Contact:
Nate Boettcher, President & CEO
W7725 US Hwy 10
Ellsworth, WI 54011
1-715-273-4355
nboettcher@piercepepin.coop

b. If the application proposes a public-private partnership, the identity and contact information for all application partners.

Town of Clifton Pierce County EDC
Attn: Joe Rohl, Supervisor Attn: Joe Folsom
W11705 County Rd FF 410 St. 3<sup>rd</sup> St.

River Falls, WI 54022 River Falls, WI 54022
Ph: 715-262-3744 Ph: 715-425-3881
E-Mail: townofcliftonclerk@gmail.com E-Mail: joe@pcedc.com

Copies of the partnership agreements are contained in Exhibits A and B. Pierce County has provided a letter of broadband support shown in Exhibit C.

c. The application must show that the applicant is an organization, a telecommunications utility, or a city, village, town, or county that has established a legal partnership or joint venture arrangement with an otherwise qualified organization or telecommunications utility, and as such meets the eligibility requirements set forth in Wis. Stat. § 196.504(1).

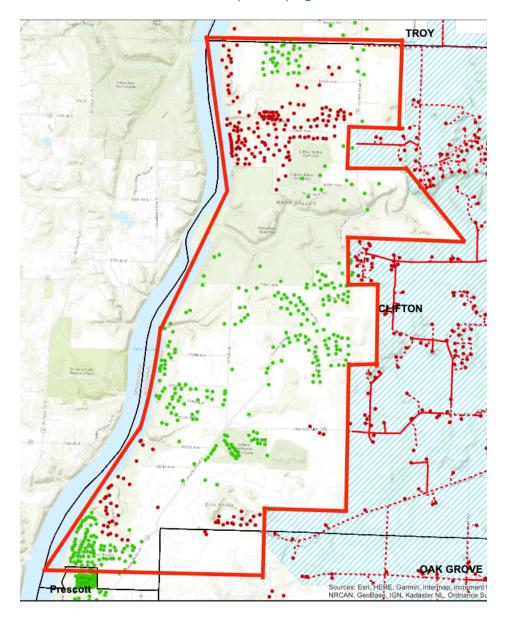
Pierce Pepin Cooperative Services, herein "PPCS", is a not-for-profit cooperative, organized in the State of Wisconsin, County of Pierce, Town of Trimbelle and meets the eligibility requirements of Wis. Stat. § 196.504(1). PPCS was first incorporated in 1937 as Pierce County Rural Electric Cooperative, the name was later changed to Pierce Pepin Cooperative Services in 1999.

# 3.2.2 Description of the project

a. A static map and description of the area of the State that will be affected by the proposed project.

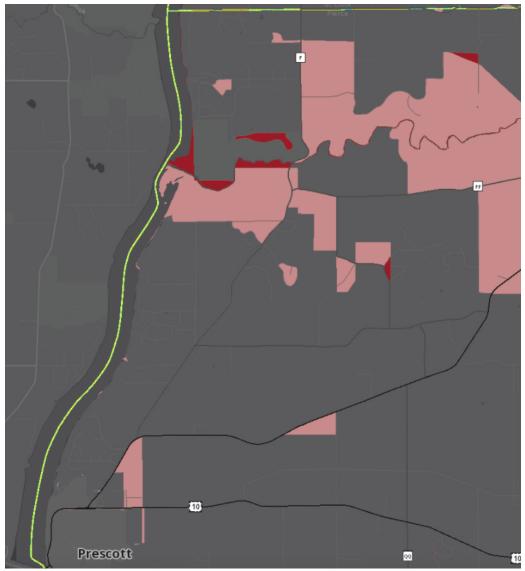
This project builds fiber to locations that are in the western portion of the Town of Clifton. The Town of Clifton is the most western township in Pierce County that borders the St. Croix River. The township has a diverse population base which includes both residential homes, seasonal cabins,

farms, and recreational destinations. This area includes two different golf courses along with the Kinnickinnic State Park and Kinnickinnic River that make the Town of Clifton a desirable place to live. In addition, the Town of Clifton is located to the north of Prescott, to the west and southwest of River Falls and to the south of Hudson. County Road F is used to commute between Prescott and Hudson. Prescott sees a large volume of commuter traffic heading into the Twin Cities metropolitan area. This project also serves two different school districts, River Falls and Prescott. Residents also have access to the UW-River Falls campus and programs.



The red boundary shown on the map depicts the outline of the project area. The blue area to the east is included in the grant projects that PPCS is undertaking in 2022. The green dots represent non-PPCS electric members served by another utility, whereas the red dots show PPCS members. All locations will be served by this project regardless of utility provider.

b. If the project area lies within a census block designated as served on the PSC Broadband Map, provide additional documentation to demonstrate the actual broadband service that is available in the proposed project area.

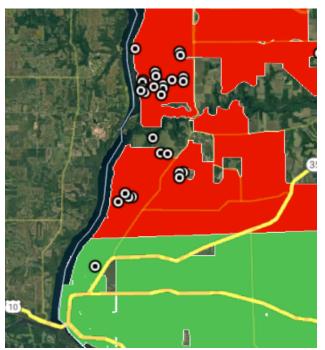


Note: Red is unserved, pink is underserved, and the remaining is considered served per FCC data.

On the current maps, the area is shown as served in quite a few census blocks as reported by the FCC data. We believe this data to be largely inaccurate. Prior to the final maps provided by the Rural Development Opportunity Fund (RDOF), several census blocks in the project area were considered underserved. The final RDOF maps depicted a different result. What changed? It's our contention this is another example of poor and highly inaccurate mapping or examples of providers overstating their actual capabilities in these areas. Far too often providers cast a large net of potentially served, without serving customers. Both the surveys we conducted, and letters of support tell the story of the actual service available. Also, note the small, underserved areas. In many of these cases it would be illogical for a provider to be able to serve one area and not the other. We contend these areas are mostly overinflated by carriers of potentially served instead of having actual customers, reliable and proven speed tests for every customer.

Surveys were sent out to those customers in the areas that indicated they were served. PPCS received 35 completed responses in response to our request. Of those 7 who completed the survey used only cellular based service. Of the remaining 28 surveys, the average speed was 14.52 Mbps download and 4.04 Mbps upload with average latency of 91.56 ms. In some cases, residents did not complete a survey because they did not have any actual internet service even in areas where the map depicts service being available. The following chart provides a general outline of speed tests that were provided in the area.

# **Survey Map Data**



Note: The map colors only depict served areas, unserved areas have been removed. Surveys returned are shown as the dots with some overlap in congested areas.

Provider	Average Speed	Highest Reported Speed (Down/Up)	Low Reported Speed (Down/Up)
AT&T	10.455 / 4.498	33.907 / 6.645	2.235 / 0.629
CenturyLink	12.50 / 3.20	21.981 / 11.561	4.906 / .433
Nexterra	13.59 / 1.673	33.186 / 9.634	2.235 / .813
Other Providers*	17.84 / 6.05	28.915 / 13.99	.192 / .1

<sup>\*</sup>Surveys returned contained no more than 2 speed tests, this included fixed wireless providers and satellite providers.

Based on the analysis and provided speed tests, there is not 100% coverage of event 25/3 Mbps service let alone 100/100Mbps service which is the minimum that will be provided by this project. In many of the cases, the highest reported speed is an outlier for the sample size. The average speed tests provide a more realistic view of the actual available service keeping in mind that in many cases, homes are not even eligible to receive service.

One Town of Clifton resident provided additional comments stating they were subscribed to a 100 Mbps plan but was lucky to see 10-15 Mbps of actual service. In addition to the less than stellar speeds, no provider is providing symmetrical service. Symmetrical service is critical for those who participate in web conferences, transferring files, and uploading documents to online services. Many of the providers claiming to offer high-speed broadband offer  $1/5^{th}$  of their download speed in upload capabilities.

FCC Chair Jessica Rosenworcel stated in her confirmation hearing, "The current maps that the FCC is using have "a whole lot" of flaws that systematically overstate coverage and as a result, there are areas in the country where we just assumed service was, but people on the ground will tell you, no, it's not here. So, we haven't been always sending our support structures and our support systems to the right places as a result of those flawed maps."

The speed tests and the people that live in this area will tell a different story than the mapping of data. If there was available and reliable service in this area, residents would not have shown up in force to support this project. We ask the PSC to strongly consider actual speed test results and poor FCC mapping that is well established as flawed and incomplete.

c. An explanation of how the proposed project will increase broadband access. Include information about the: Potential and expected number of households served, including number of unserved and underserved locations. Potential and expected number of businesses served, including number of unserved and underserved locations. Expected number of seasonal residents and tourists served. Estimated download and upload speed of the broadband service packages available for purchase.

There are 648 locations that will be served because of this project. We estimate there are approximately 8 business locations in this application, however in many cases residential addresses include many home-based businesses that are not always visibly present. A number of these residents often commute to larger metro areas including into the Minneapolis/St. Paul area. During a Town of Clifton meeting, one resident stated they were paying over \$400 a month for service. If the barrier to adoption is price for many people, the opportunity to have 100/100 Mbps service at \$69.95 will be highly attractive and competitive with higher-density carriers.

Service offerings will provide Gigabit symmetrical service (1000/1000 Mbps) with the possibility of offering 5 Gigabit services in the future. Service plans offered include a 100/100 Mbps plan. Plans range from \$69.95 to \$124.95 with optional phone service available as well.

This project area has two golf courses that will enjoy the benefits of broadband. The Kinnickinnic State Park may also be able to take advantage of fiber optic service. These three entities alone drive a sizeable amount of tourism to the area.

d. A statement whether the proposed project is targeting the "last mile," "middle mile," or backbone portion of the broadband infrastructure.

This project will provide last mile service.

e. A description of the broadband service to be provided, including estimated download and upload speeds, whether the speed is based on dedicated or shared bandwidth, and the technology that will be used. This description may be illustrated by a map or schematic diagram, as appropriate.

Packages	Download Speed	Upload Speed
Gigabit	1,000 Mbps	1,000 Mbps
Ultra	250 Mbps	250 Mbps
Advanced	100 Mbps	100 Mbps
Qualified Income	50 Mbps	50 Mbps
Voice Service	Local + Long Distance	Local + Long Distance
	Included	Included

<sup>\*</sup>Qualified income plans utilize qualifications based on LIHEAP based programs. PPCS has a pending application for Affordable Connectivity Program which will provide \$30 discount.

At minimum, this project provides 100/100 Mbps symmetrical service to every home and business in the proposed application area. PPCS is the sole owner of all network equipment and is responsible for all maintenance and upgrade of the equipment. PPCS will also provide local support and service to customers. The outside plant fiber network will be underground and aerial construction that generally follows an existing electric distribution network. The core fiber transmission will primarily utilize 144 count fiber utilizing a distributed tap model.

### **Network Architecture and Design**

Distributed tap networks are appropriate for rural networks and reduces the amount of fiber to serve rural areas especially in situations where long distances need to be covered. In addition, for most rural areas, the lack of density will not dramatically change which means the tap architecture serves the purpose today and into the future. This is an example of cost-saving measures that allow the PPCS to build more fiber for less investment.

PPCS provides services utilizing Passive Optical Networking (PON) architecture. Internet service tiers will include offerings of symmetrical 100/100 Mbps, 250/250 Mbps and 1/1 Gbps, also expressed as 1000/1000 Mbps. It should be noted existing service by other providers in this area largely do not provide synchronous service. All locations will have low latency access and scalability for the future. This project meets the needs of the future, not just increasing speeds or providing a stopgap option. The outside plant fiber optic network is designed to support all current versions of PON network technology, including:

XGS-PON supporting 10 Gbps downstream and upstream (Current Focus)
NG-PON2 supporting 80 Gbps downstream and upstream. (Future Availability as Needed)
These technologies are supported without the need for any outside plant construction or modification. Future expectations include vendors development of 100 Gbps PON technology that would be compatible with the fiber optic network.

PPCS works in partnership with Conexon, who specializes in working with electric cooperatives to design, install, activate, and maintain Fiber to the Home (FTTH) networks. Conexon's established relationships with existing telecom service providers allows for real world network metrics, documented later, to establish baseline metrics for the network build to be undertaken. Based on the metrics provided by Conexon from their 5 years of experience and over 30,000 miles of network design, achievement of Gigabit symmetrical service is currently in production using this architecture. Distributed Optical Tap architecture for last mile fiber build is utilized.

- PON design limit of 24 optical tap ports per PON leg
- 86.45% utilization of optical tap ports per PON leg

• 70% penetration of data service over a 5-year period

Note: The terms homes, subscriber, Optical Network Terminal (ONT), and "tap port" are generally interchangeable in reference to the network or network build in this document. All terms typically indicated a fiber termination point which exists to provide network access to a single end subscriber, home, small business, or other physical location.

A PON leg is defined as a single fiber optic strand of glass leaving the telecommunications hut, also referenced as a fiber hut, to provide last mile connectivity to a shared group of homes or businesses with a designed maximum of 32 serviceable locations. Due to the fixed port configuration of a distributed tap architecture where taps come in 2, 4, and 8 port version, it is generally difficult to design a network that fully utilizes a maximum of 32 optical splits. Conexon design specifications dictate a maximum of 24 tap ports per PON leg to accommodate future tap deployment if new homes dictate.

The overall network architecture not only takes advantage of the latest technology but also allows future scalability as both premises and data speeds increase. The use of fiber optic cable does is not limited by capacity of the cable and electronics can be upgraded over time. For this application, the proposed technology and build will be more than sufficient to serve 100% connectivity of every home.

f. For middle mile projects: Identify last mile broadband service providers that will connect to the middle mile facility.

### Not Applicable

g. A schedule by which the applicant intends to complete the components of the proposed project. The project period is up to 24 months.

Milestone Events	Project Period
Project Kickoff (Assumes mid to late summer 2022 award)	October 2022
Network Design, Construction Planning, Make Ready Engineering	October 2022 – December 2022
Make Ready Construction	January 2023 – March 2023
Main Line Construction Build	March 2023 – August 2023
Fiber Drops / Home Installs	September 2023 – April 2024
Project close out	April 2024

# 3.2.3 Itemized Budget

a. In addition to the Summary of Project Budget that is included as page 3, applicants should include a price list or quote for any equipment the applicant intends to purchase, including capital expenditures. The application should also indicate whether any facilities involved would be owned, rented, or leased.

Exhibit G includes a bill of materials. The entire project and plant will be owned by PPCS. Pricing is subject to signed non-disclosure agreements; however, pricing verification can be provided to the PSC under separate cover if redacted.

Category	Description	Cost	Additional Notes
Contractual, Consultant	Mainline Construction, Drop Construction, Design, Project Management Oversight, Consultant Work, Splicing	\$3,069,895	Includes home install costs, splicing, fiber construction units, and all consulting assistance with project management, oversight, design, etc.
Equipment	Electronics for Hut	\$45,823	Additional electronics support GPON network
	Construction Materials	\$1,349,754	Construction materials, fiber, strand, conduit, splice cases, pedestals, etc.
Labor	PPCS Salaries for Project	\$45,000	Fiber technician, project manager, network operations manager
Permitting, Licensing Fees	Various state, local and county fees, including road crossing permits	\$5,000	
Other	Community enrichment	\$12,960	Educational programs, outreach, training, and assistance programs to get residents connected.

The budget is based on building 75 miles of fiber with 65 miles of fiber being built underground and the remaining being built overhead. This area is unique in that multiple electric providers are intermixed in between housing subdivisions. There will be a higher amount of underground being built due to current limitations to joint pole use. The average cost per mile is \$60,206. There has been an upward trend in material and labor cost associated with recent inflation data. Contracted labor accounts for \$3.069 million of the total costs. This includes such things as mainline construction labor, splicing, and drop crews. PPCS plans to utilize some of its own labor which makes up \$45,000 of the project costs. Materials make up \$1.349 million in total costs. This includes conduit, fiber, vaults, pedestals, and miscellaneous materials for construction. This project will use 144-ct fiber to ensure future expansion and availability will be available in the area. The budget includes \$5,000 for miscellaneous permitting and license fees. The remaining \$12,960 is to be used for outreach and educational programs, along with digital literacy programs that may be offered in coordination with the Town of Clifton

b. The application must show that the grant, if awarded, will not subsidize the expenses of a telecommunications provider or the monthly bills of telecommunications customers. For purposes of this grant program, subsidize means a contribution to the operating costs, including profit, of the telecommunications provider.

The project will not be used to subsidize any expenses of the provider or PPCS customers. All project expenses will go directly to support the construction, fiber, and electronics used to deliver service.

- c. The application must show that the grant funds requested will be used for the sole purpose of constructing broadband infrastructure in the underserved areas covered by the application. Construction of broadband infrastructure may include any of the following:
  - Project planning that takes place during the performance period.
  - Obtaining construction permits.
  - Construction of facilities, including construction of both "middle mile" and "last mile" infrastructure.
  - Installation and testing of the broadband service.

The total project budget includes labor for construction and installation, network design and planning, easement/application work, and drops to the premise. Please note, the project budget does not include any work to upgrade existing facilities such as power poles, improving clearances, or right of way maintenance work such as brush clearing, tree trimming, etc.

# 3.2.4 Priority factors supporting the application

- a. <u>Matching funds</u>. A description of the matching funds the applicant will invest in the proposed project, if any. For each element, indicate the type of match (cash, salary expense, or in-kind contribution). If the application is submitted by a partnership, identify the partner responsible for providing each element of the proposed matching funds. *Note: The requirement for this information is satisfied via inclusion of the completed Funding Statement as page 4 of the application.* 
  - If available, provide documentation to support an offer of matching funds (minutes of a town board meeting, a letter from a prospective customer or local government official, etc.).
  - Matching funds contributions must be a firm commitment of funding to the project.
     Contributions that vary based on the amount of actual sales, customer contributions, or other criteria will not be given weight.

The budget summary is included.

Exhibit A includes the Town of Clifton resolution for \$220,000. Exhibit B includes the in-kind contribution from Pierce County Economic Development Corporation.

- b. <u>Public-private partnerships</u>. If the public-private partnership is memorialized in a joint venture agreement or other writing, provide a copy of that agreement. If the partnership has not been reduced to a written agreement, provide a short description of the management role, financial commitment, or other contribution to the project for each participating partner.
  - In scoring this element, information regarding active engagement of diverse communities in the planning, permitting, or marketing of the project will be given weight as well.

Pierce County Economic Development Corporation has provided a letter of support and partnership for this project. The Pierce County EDC has been a driving force in creating awareness around the lack of broadband. They have worked closely with several towns and the county encourage the adoption of the Broadband Forward designation. They have worked closely with grassroots groups such as Western Wisconsin Needs Broadband and Pierce County Grassroots Organizing which has worked closely with communities on broadband issues. The Pierce County EDC has provided in-kind contributions for this project and will continue to help provide education and awareness for this project.

In addition, we've included a letter of support from Pierce County. Pierce County is currently working on a program that may assist with broadband development in the future, but they were not ready in time for this grant. The Pierce County letter of support is provided in Exhibit C.

The Town of Clifton has provided the matching funds and a resolution confirming their partnership with PPCS. The Town of Clifton residents are passionate about seeing this project be successful. Once the agenda item was listed on the Town's February meeting, over 140 residents signed letters of support encouraging the Town to provide matching funds.

In addition, nearly 40 residents attended the Town meeting, all in complete support of helping to provide the matching grant. Several residents shared their personal stories about working from home, having school age children, and the challenges of having careers which require bandwidth intensive data needs. The proposed application will eliminate a long history of frustration of these residents. Lastly, it should be noted that the Town of Clifton has tried to partner in the past. The Town was unable to find a partner that could serve all the needs of its residents. PPCS is committed to this project with the end goal of ensuring that every Town of Clifton resident has access to high-speed broadband service.

- c. <u>Existing broadband service</u>. A list of the broadband service providers, if any, currently serving the area the applicant proposes to serve. In scoring this element, the following factors will be taken into account:
  - The degree to which the proposed project avoids duplicating existing broadband infrastructure.
  - The application of a wireless broadband service provider proposing significant overlap with existing broadband service in addition to service to an unserved area will not be given priority consideration.
  - Provide a list of all landline broadband service providers (DSL, cable or fiber to the home) and fixed wireless broadband service providers that overlap the footprint of the proposed broadband project.
  - If known, provide an estimate of the customers within the proposed footprint that are served by competing landline and fixed wireless broadband service providers, and the download/upload speeds offered by those competing service providers.
  - Provide a list of mobile wireless broadband service providers that overlap the footprint of the proposed project.

- If known, provide an estimate of the customers within the proposed footprint
  that are served by competing mobile wireless broadband service providers, and
  the download/upload speeds offered by those competing service providers. (The
  presence of existing mobile wireless providers does not contribute to or affect the
  evaluation of existing broadband service in the project area for purposes of
  priority consideration, but provides a more complete picture of the broadband
  options available to residents.)
- For middle mile projects, describe the unserved and underserved areas that the middle mile route will transit. In scoring this element, the following factors will be taken into account:
  - The number of unserved and underserved service locations that could potentially connect through the proposed middle mile route.
  - The degree to which the middle mile route will reduce the cost of extending fiber to the premises broadband service to business and residential service locations in an unserved or underserved area.
  - The degree to which the proposed middle mile route avoids duplicating existing and planned fiber to the premises broadband infrastructure.

As noted earlier, there are several different carriers that provide service in the Town of Clifton, however not all carriers are able to provide service to the entire Town or are limited by the technology they offer. The proposed project area sits alongside the St. Croix River with several river bluffs. This area also has a high density of tree canopy and elevation changes which makes fixed wireless a poor choice for service.

Provider	Reported Speed	Туре	Customer Speeds
AT&T	10/1 Mbps	Fixed Wireless	8.07/5.35 Mbps
Nexterra	50/50 Mbps	Fixed Wireless	13.59/1.673
T-Mobile	25/3 Mbps	Fixed Wireless	N/A
HughesNet	25/3 Mbps	Satellite	.192/.1
Viasat	100/3 Mbps	Satellite	N/A
CenturyLink	10/.75 Mbps	DSL	12.50 / 3.2 Mbps
AT&T	6/1 Mbps	DSL	2.8/2.2 Mbps

It's impossible to truly know how many customers were being served by the above-mentioned group and in many cases, customers might be within a geographical boundary may not be able to receive service due to line-of-sight issues. DSL and satellite technologies are limited in their capacity to bring high-speed internet service. We do know that people are frustrated and want better service. As one resident stated:

We currently have internet through provider redacted>. This is extremely unreliable. We currently
pay for the highest level of speed, which they state is over 100 Mps (sic). However, consistently in the
evening - especially on the weekends, the speed drops significantly. At times, the download speed
drops to 10-15 Mbps. This is ridiculously slow! <Provider redacted> has nobody working on the
weekends. I take screenshots and send it to them. They look at the system on Monday morning and
see no issues. Well of course not because it is on the weekend evenings that there is the biggest

problem - when they have nobody working and most of the time nobody actively monitoring emails. Their system has been completely failing more often. I am a physician and work from home. This is significantly hindering my ability to take care of patients.

Testimonials tell the story, and this project will help ensure that no resident or business will be left behind.

d. <u>Project impact</u>. A description of the geographic area and the population, both in terms of absolute numbers and likely users, which will be served by the proposed project. Indicate the number of anticipated residential and business customers in the project area, if known. Explain the speed and quality of internet service that will be available. Include information about the range of packages available for purchase. Provide details on any low-income access programs and steps the project will take to support adoption.

There are a little more than 1,600 residents that live in the project area. This area has a diverse demographic mixture. Based on previous customer signups for like areas we expect initial take rates to be around 60% and climb to 70% within the first few years of service. Most of the individuals in this area are either working families or early retirees. The working families are a mixture of family farms or work in jobs that require some use of technology such as an office workers, skilled professionals, or skilled tradespeople. The project area has seen recent growth with new housing, often with commuters that can work remotely.

Packages	Download Speed	Upload Speed	Monthly Cost
Gigabit	1,000 Mbps	1,000 Mbps	\$124.95
Ultra	250 Mbps	250 Mbps	\$99.95
Advanced	100 Mbps	100 Mbps	\$69.95
Qualified Income	50 Mbps	50 Mbps	\$29.95*
Voice Service	Local + Long Distance	Local + Long Distance	\$24.95
	Included	Included	

Qualified Income plans utilize qualifications based on LIHEAP based programs. PPCS has a pending application for Affordable Connectivity Program which will provide \$30 discount if approved. Often the barrier to connectivity is the cost of service and the equipment needed to connect. The findings of Wisconsin Broadband Taskforce spend a considerable amount of time outlining these barriers. As a member-owned cooperative, PPCS works with broadband customers to reduce these barriers including providing technical assistance, spreading the cost of connection fees across multiple billing cycles, and working with community organizations to help provide both new and recycled equipment. No customer should be excluded from having access to connectivity when these barriers can be removed proactively and with community partnership.

e. <u>Scalability</u>. A description of how the proposed project could expand or improve the broadband service it delivers, while maintaining the quality of its broadband service.

This description should include specific projected increases in the following parameters that are known at the time of the application:

- The number of users.
- The number of network nodes.
- The number of services provided.
- The geographic area served by the project.
- The number of aggregation points in middle mile project.

This description may also include a discussion of possible growth potential that is outside the commitment the applicant is making as part of its application.

Pierce Pepin Cooperative Services utilizes electric infrastructure to strategically make investments in the buildout of broadband. Electric cooperatives have a thorough understanding of the areas they serve and the locations that may require high-speed internet. Where electricity provides service to a location, that location is a candidate for broadband. This project extends service to the remaining parts of the Town of Clifton that have not been covered in applications.

This project will use existing telecom hut that is located to the east of Prescott with plenty of capacity to serve this area. A portion of the project will also be served from a hut located west of River Falls that is serving the northern part of the town. All mainline fiber will use 144-ct fiber which provides plenty of capacity for the entire project area as well as potential for growth. This project also provides redundancy by creating a ring between two other telecom huts.

- f. <u>Economic development</u>. A description of how the proposed project will promote job growth or retention, expand the property tax base or improve the overall economic vitality of the municipality or region. This description may be supplemented with a letter from one or more persons discussing the potential economic impact the project could have for that individual or business. In scoring this element, the following factors will be taken into account:
  - A discussion of potential economic impact the project could have for an individual business located in the project area.
  - An explanation of how an improved download and upload transmission speed could better support a specific business in the project area.
  - An explanation of the likely impact improved broadband service could have on residential property values, supported by local sales data if available.
  - A demonstration of how improved broadband service to a residential portion of the project could benefit a telecommuting population.
  - A demonstration of how the speeds and service being offered by the project fits with current and future economic needs of the community and local businesses.

In May of 2020, Pierce Pepin Cooperative Services embarked on a comprehensive survey of 2,500 cooperative members to better understand the needs of high-speed internet. Over 1,300 responses were received. The results of that survey depict the economic development opportunities that high-

speed broadband will create. Survey participants that responded are included in the proposed project area.

As an example, we asked survey participants whether access to high-speed internet would allow a family member or themselves an opportunity to run a home-based business or work remotely. Nearly 70% responded "Yes" to this question. This has further been amplified in a Facebook Group called "Western Wisconsin Needs Broadband" where one group participant stated:

"<Satellite provider redacted> is awful. It doesn't work if we are having any type of weather. Also the cheapest package is \$120 and is so slow and we burned through the data limit so fast bc I am working from home full time due to COVID. We upped to the highest package, \$240/month and it is still not even reliable and we use up the limit before the month is over. It's so frustrating bc we are barely outside of town and live close enough to the cities for me to commute (when it's not COVID) but don't have decent internet. "

The response from other residents has been consistent with the theme of this message. The frustration during the pandemic is real. A unique characteristic of the project area is the proximity to the Twin Cities metro area. A large part of the population commutes into Minnesota or other area larger cities for work. Many of these residents may never return to the office has corporations have seen the benefits of remote work. Residents who work remotely, inherently have less expenditures near their workplace which may be out of state. There is a draw to telecommute work and connectivity to broadband allows more Wisconsinites to work in rural areas and help keep our rural economies strong. In fact, the impact of COVID-19 and civil unrest during the past summer has created opportunities for border counties to the Twin Cities area. Broadband further provides incentives for telecommuters and individuals who seek the beauty of our rural landscape.

As noted in the project impact, this is also an agricultural area that is primarily involved with livestock, crops, and dairy. Advances in precision ag, telemetry and innovations on the farm will continue to require new bandwidth needs that will overpower existing infrastructure.

The impact of broadband is also demonstrated in home prices and property valuation. Two studies provide context for this:

Research and Policy INsights – Estimation of the Net Benefits of Indiana Statewide Adoption of Rural Broadband; Larry DeBoer, Alison Grant, Wallace E. Tyner <a href="https://pcrd.purdue.edu/wp-content/uploads/2018/12/006-RPINsights-Indiana-Broadband-Study.pdf">https://pcrd.purdue.edu/wp-content/uploads/2018/12/006-RPINsights-Indiana-Broadband-Study.pdf</a>

Measuring the Economic Impact of Broadband", September 18 2019NTIA Broadband USA Webinar Series; https://broadbandusa.ntia.doc.gov/webinar 190918#contentarea

Currently in Pierce County, the unserved land value in total is \$52,926,650.00 with an improved value total of \$124,117,700.00. Applying a two to three percent increase would increase the total property value by a total of \$2.48 to \$3.72 million. Survey respondents overwhelming support this stating, 76% see broadband increasing the value of their home.



# 76% state broadband would increase the value of their home

The Pierce County Economic Development Corporation completed a white paper to help encourage additional investment by the county in broadband. A copy of that report has been posted online at https://pcedc.com/wp-content/uploads/2021/01/Broadband\_whitepaper.pdf

The project area is situated between Prescott and River Falls. The public schools in both communities have offered remote learning in era of COVID-19. UW-River Falls also employs several people in the region and offers distant learning options. Access to high-speed internet improves the educational system and institutions.

The survey demonstrated that median household incomes and educational levels are above rural norms as shown in Figure 4. Customers in this area are likely to subscribe and may work within industries that avail themselves to a connected workforce. These customers also recognize the importance of broadband in the area. Survey responses indicate that 70% believe high-speed internet is important to long-term economic viability.



Figure 5: Survey results on household income in project area

g. <u>Effect upon broadband service to adjacent areas</u>. A description of whether the proposed project will or will not impair the ability of a broadband service provider or competing broadband service provider to extend broadband service to areas adjacent to the proposed project area.

This project does infringe upon other types of broadband services from competing for these customers.

# 3.2.5 Other information supporting the application

a. A description of applicant's history or experience constructing broadband communications facilities in the State and elsewhere.

- If applicable, an applicant must comment upon the status of all prior broadband expansion grant projects, including the type of broadband technology used, the facility route actually built or installed, the number of residential and business customers actually connected, and other relevant details of the prior project(s).
- An applicant may also comment on broadband construction projects undertaken in prior years that were not funded in part by the Broadband Expansion Grant program.

Pierce Pepin Cooperative Services officially launched a broadband subsidiary in 2021. The 2021 WI PSC broadband grants provided the initial opportunity for PPCS to participate in the broadband expansion grants.

PPCS has two main goals of building fiber. The first is to bring broadband service in an area that needs connectivity. The second is to build a fiber backbone to electric distribution substations for the purpose of building the next generation grid. During the larger PPCS buildout, a parallel path will begin building out fiber along electrical feeders that serve member premises and connecting cooperative distribution assets. Improving fiber connectivity not only benefits homes and business by providing high-speed internet, but it helps improve the electric grid.

PPCS has partnered with Conexon based out of Kansas City, Missouri. Conexon works exclusively with rural electric cooperatives to bring fiber to the home in rural communities. The company is comprised of professionals who have worked in electric cooperatives and the telecommunications industry, and offer decades of individual experience in business planning, building networks, marketing and selling telecommunications. Conexon offers electric cooperative client's end-to-end broadband deployment and operations support, from a project's conception all the way through to its long-term sustainability. They have worked with clients to analyze economic feasibility, secure financing, design the network, manage construction, provide operational support, optimize business performance, and determine optimal partnerships. To date, Conexon has assisted nearly 200 electric cooperatives, approximately 100 of which are deploying fiber networks. Their work with clients has resulted in nearly 150,000 connected fiber-to-the-home subscribers across the U.S., and the company has secured more than a quarter of a billion dollars in federal and state grants for its clients. At the current rate, Conexon is building 2,500 miles per month and connecting 15,000 subscribers. The relationship PPCS has with Conexon will ensure project success.

# **Wisconsin PSC Broadband Expansion Grant 2021**

PPCS was awarded two grants in the WI PSC FY2021 grant program to build to approximately 475 locations. This Phase 1 project is scheduled to be completed this Spring. PPCS expanded the original scope of this project and self-funded a larger build which included bringing fiber to 1500 locations and building 175 miles of fiber. The investment by the WI PSC grant program has created a much bigger impact than the original application.

# Wisconsin PSC ARPA Broadband Expansion Grant 2022

In the Fall of 2021, PPCS was awarded nine projects to serve 2400 locations and build 466 miles of fiber as a Phase 2 project. This project has been concurrently kicked off as Phase 1 comes to closure. Phase 2 will be completed in the Spring of 2023. As part of Phase 2, both the northern and southern parts of the Town of Clifton are being served with high-speed broadband.

PPCS has demonstrated it can handle the scale of these projects and continue to build out service in an aggressive and efficient manner. PPCS has been managing through material and contractor

availability, and while challenges exist, the Phase 1 project is ending with more than 800 customers registering for service and more signing up each day. We expect once Phase 2 begins rolling out to customers, take rates will be in the 60% range before the first premise drop is completed. We expect in this application, the take rates to be comparable to other projects and grow to 70% within the first few years.

b. A description of how the proposed project will or will not duplicate existing broadband infrastructure.

As part of the due diligence process, PPCS physically drives the project area noting fiber and existing broadband` services. Where possible, PPCS takes notes of these and validates with customer survey, questionnaire, and research. PPCS does not believe this project substantially overlaps service providers that are providing reliable broadband without restrictions.

- c. A description of an applicant's financial ability to undertake the proposed broadband construction project.
  - This may include information such as the number of years the company has been in operation, documentation of successful completion of similar infrastructure projects, evidence that sufficient funds are available to cover project expenditure and match, customer turn-over rates, and credit rating.

PPCS was incorporated in 1937 and energized its first member in 1938. We have strong financials for a cooperative our size, including revenues consistently over \$18 million over the past two years. As a cooperative, we provide service in a not-for-profit model. The cooperative has returned \$16.3 million back in patronage to members. This is money that is put back into the hands of our memberowners when the cooperative is successful. Our net margin was \$1.3 million in 2021. We currently have \$43 million dollars in assets. Our equity ratio at the end of 2021 was 57%, which was 12 points higher than industry averages for over 800 electric cooperatives. We have secured additional funding through our national lending institutions for the buildout of fiber. Exhibit E includes a letter from National Rural Utilities Cooperative Finance Corporation.

d. For middle mile projects, state the terms under which the applicant will make its middle mile fiber resource available to last mile providers. Without disclosing project-specific or customer-specific negotiated rates for service or access, state whether access to the middle mile fiber resource will be offered to last mile providers at a rate that is reasonable and common to the industry. Describe any restrictions or limits that may limit the availability or interconnection with the middle mile route.

# N/A

e. For middle mile routes, state the amount of fiber capacity, by number of fiber strands in a cable, that the applicant has been reserved for public use. Describe any commitment or tentative discussion indicating the local government or State agency that might use those fiber strands, and for what purpose. Describe any restrictions or limits that may limit the public use (e.g. a possible use conflicts with an existing program covering the same subject matter).

- f. A description of how the proposed project will affect the ability of individuals to access health care service from home, including any impact upon the costs of those services.
  - Specific information from a hospital or clinic in the project area that currently
    uses or intends to use home-based telemedicine equipment to enhance access
    health care service would best illustrate this point.

The COVID-19 pandemic has put a large spotlight on telemedicine as for many individuals this has become the only way to see their provider, renew prescriptions, and receive updates to medical equipment such as pacemakers. Rural residents often must travel to a community center, library, or hotspot to connect with providers as we have no hospitals inside of Pierce County. Allina Health, Vibrant Health Family Clinics, and the Mayo Clinic Health system all offer telemedicine options.

Rural health and the opportunities for seniors to see local providers is in decline. While the health industry pushes towards telemedicine, those without access lose out and often end up driving much greater distances to receive medical care. Enabling broadband doesn't fix hospital closures, but it opens new opportunities for the future. Included in the application is a letter of support, Exhibit F, from Pierce County Health Officer and Public Health Director AZ Snyder. In her letter she states:

"I am writing to express my support for Pierce Pepin Cooperative Services' efforts to increase broadband internet access in Pierce County, Wisconsin. Not only does access to fast, reliable, and affordable internet have direct health benefits as a result of increased access to healthcare providers and health information, but it has indirect health benefits to health deriving from increased economic and educational opportunities for Pierce County residents.

Half of Pierce County is a designated Health Professional Shortage Area (HPSA), meaning we have a shortage of healthcare providers compared to the population. Pierce County has no hospitals within our borders. Two clinics we had in rural areas of our county (Ellsworth and Spring Valley) closed in 2020, further reducing access in in-person local medical care. Pierce County has less primary care providers, dentists, and mental health providers per population than both the state and neighboring St. Croix County."

# Ms. Snyder goes on to state:

"The continuation and expansion of telehealth services by Pierce County Public Health relies on the availability of broadband internet access. Affordable and quality internet access would also allow us to reach more diverse audiences in rural areas of the county who have traditionally been underserved. This access would result in real health impacts on the health status of Pierce County residents."

Expansion of broadband indeed will benefit the expansion of health care options in the county. It will make care easier and allow for innovative ways for residents to interact with their providers and to ensure they are receiving timely and crucial health services to maintain health.

- g. A description of how the proposed project will affect the ability of students to access educational opportunities from home.
  - Specific information on the likely number of students that will benefit from improved access to educational opportunities from home would be useful.
  - Specific information regarding educational programs that are currently available for students in the project area would be useful.

The project area includes both the River Falls and Ellsworth School Districts, as well as the University of Wisconsin-River Falls and Chippewa Valley Technical College. Both school districts, CVTC and the university utilize technology in their schools including providing laptops for students.

All school systems are doing in-person, hybrid, and distant learning. Individuals who do not have broadband must find public hot spots or access connectivity through community services such as libraries. Pierce County is a poster child for students who are unable to do schoolwork from home and must sit in parking lots that offer wi-fi. Having access to broadband will eliminate the need for students to stay in town or finding a hotspot in the evening to complete schoolwork.

Outside of the overwhelming desire to have a fiber option, the most common response we received in our survey was the access to broadband for learning. The following comments are reflective of the community support for this project:

"I knew it was inadequate but with my kids trying to do school from home it had made it even more apparent how lacking our service is."

"High quality internet service is as critical to this area as electricity. We don't assume rural people will find their electricity through random means, but that is what is currently happening with broadband. Our kids are missing out by not being connected."

Alan Tuchtenhagen, a River Falls School Board Member and Town of Clifton resident provided a letter of support shown in Exhibit H. In that letter he stated the following:

"I am in a unique position to comment. As a long-time River Falls School Board member, I have seen our schools embrace technology to enhance learning for all students. If done right, technology is the new "leveler" by providing universal opportunities to help students and families of all socio/geographic/economic circumstances take advantage of the educational opportunities available to them. The challenge for them, however, is to have access to dependable high-speed internet. We provide devices (laptop computers) for all students to use while at school or to take home. They can even use them over the summer, but their value is diminished if they have weak, undependable, or nonexistent internet access outside of the school day. "

The 21<sup>st</sup> Century classroom incorporates digital learning and the ability for children to be able to learn and research is critical. Rural children need the same opportunities as those living in larger communities. Our project accomplishes another piece of bridging the gap.

- h. A description of actions taken by a city, village, town, or county in support of the grant application that have not been discussed in the context of a public-private partnership above, including but not limited to:
  - The contribution of funds, easements or permissions to use publicly-owned real estate, construction materials, or other items of value to the grant project.
  - The contribution of in-kind assistance to the grant project in the form of waived fees and expenses for obtaining use permits and permissions.
  - The contribution of other items of benefit to the grant project, such as public outreach and education, vehicles, water, etc.
  - Certification as a Broadband Forward! Community or Telecommuter Forward!
     Community.

The Town of Clifton has committed \$220,000 to the project costs. This represents about \$340 per resident of spending. This is a significant amount for a community in which road infrastructure is always top of mind for residents. During the discussion with the Town, there was considerable dialogue about the impact of using these funds for broadband. As one resident stated, "Broadband is the roads of today, without good broadband it doesn't matter what are roads are like."

Pierce County EDC has also committed in-kind contributions. As executive director, Joe Folsom, provides a tremendous amount of outreach and work on behalf of the EDC to help educate the community about the importance of broadband. Joe will provide additional technical assistance, education, training, and facilitate workshops as part of the contributions to make this project successful.

Pierce County has signed a letter of support for broadband. This letter has been included in the exhibits.

i. Letters and messages in support of the application submitted by prospective customers, local government officials, and other interested persons.

# **Letters of Support**

- 1. Senator Jeff Smith
- 2. Representative Warren Petryk
- 3. Representative Clint Moses
- 4. Representative Shannon Zimmerman
- 5. Pierce County
- 6. AZ Snyder, Pierce County Health Officer
- 7. Dr. Kerry Harting, Town of Clifton resident
- 8. Alan Tuchtenhagen, Town of Clifton resident
- 9. Dana Linscott, Town of Clifton resident
- 10. Jo Cernohous, Town of Clifton resident
- 11. Jim Conterato, Town of Clifton resident
- 12. Drs. Elaine and Larry Baumann, Town of Clifton resident
- 13. Michael and Deborah Manteufel, Town of Clifton resident

- j. Any other equitable factor that the applicant desires to discuss, including one or more of the factors in Wis. Stat. § 196.03(6) that the applicant believes its project would advance. In discussing this element, the following information may be useful:
  - Technical support and training materials that the applicant intends to provide.
  - Information that the applicant intends to use to promote better broadband adoption and use.
  - A description of a program or outreach to provide assistance to individuals of low income.

The application includes digital literacy events held at town halls in the service area of the application. These events will be held two to three times next year in which residents can attend a session at their town hall. These events will focus on the basics of connecting devices, using a browser, checking e- mail, setting up links, and conducting a FaceTime, Zoom, or equivalent call. These events will be open to all residents. PPCS has access to promote these events because of the existing relationship with customers in the service area. In addition, PPCS continues to work closely with Pierce County with the hopes that additional funding will be provided to help with assistance programs to get county residents connected.

# **Exhibit Listing**

Exhibit A – Town of Clifton Resolution

Exhibit B – Pierce County Economic Development Corporation Agreement

Exhibit C – Pierce County Broadband Support Letter

Exhibit D – Letters of Support from Senator Jeff Smith, Representative Warren Petryk,

Representative Shannon Zimmerman, and Representative Clint Moses

Exhibit E – National Rural Utilities Cooperative Finance Corporation

Exhibit F – Letter of Support from AZ Snyder, Pierce County Health Officer

Exhibit G – Bill of Materials Sample for Project

Exhibit H – Town of Clifton Resident Letters

# Exhibit A

# Resolution # 2022-1

# Resolution for the Public Private Partnership Agreement between Pierce Pepin Cooperative Services and the Town of Clifton for WI PSC Broadband Access Grant, Fiscal Year 2022

Purpose: To create a public private partnership for the purpose of applying to the state of Wisconsin PSC Broadband Access Grant, Fiscal Year 2022.

WHEREAS, on December 1, 2021 the state of Wisconsin Public Service Commission launched the FY 2022 Broadband Expansion Grant and authorized \$100 million to be spent on broadband infrastructure.

WHEREAS, the Town of Clifton agrees to enter into a public private partnership with Pierce Pepin Cooperative Services for the purpose of applying for a state of Wisconsin PSC Broadband Expansion Grant, Fiscal Year 2022.

WHEREAS, the Town of Clifton agrees to provide in-kind contributions to help educate, promote, and develop broadband outreach to residents.

WHEREAS, the Town of Clifton desires to utilize the ARPA allocation up to \$220,000 to fund broadband development and construction.

WHEREAS, Pierce Pepin Cooperative Services will apply the funds to build infrastructure to unserved and underserved areas for the Town of Clifton.

WHEREAS, Pierce Pepin Cooperative Services will apply and be the primary grant author and recipient of the grant funds from the Wisconsin Public Service Commission.

WHEREAS, Pierce Pepin Cooperative Services will receive funds from the Town of Clifton upon successfully meeting the Wisconsin Public Service Commission project closeout requirements for the awarded grant. Completion of the project.

NOW, THEREFORE, BE IT RESOLVED by the Town of Clifton Board to enter into a Public Private Partnership Agreement with Pierce Pepin Cooperative Services to expand access and services to underserved and unserved areas of the Town of Clifton by applying for a state of Wisconsin FY 2022 Broadband Expansion Grant.

Adopted this \\_\_ day of March, 2022, at a regular Town Board meeting.

By the Town Board:

Title: Mifton Board Cha

# **Exhibit B**

# A PUBLIC PRIVATE PARTNERSHIP AGREEMENT WITH PIERCE PEPIN COOPERATIVE SERVICES FOR A BROADBAND EXPANSION PROJECT IN PIERCE COUNTY,

WHEREAS, Pierce County Economic Development Corporation, Wisconsin, seeks to help provide access to resources and the support structure necessary for economic development within its. boundaries; and

WHEREAS, Pierce Pepin Cooperative Services a Wisconsin cooperative doing business in Pierce County, proposes a partnership to expand fiber-based broadband capability to reach the un-served and underserved residences and businesses in Pierce County where such service is currently unavailable or not readily available; and

WHEREAS, it is currently expected that the proposed broadband expansion would be constructed in areas within Pierce County, and the enhanced broadband access and availability will be utilized to position the area for desirable economic growth through addressing broadband existing service disparities that now exist through drops to all businesses and residential homes that want connection within the project area; and

WHEREAS, Pierce Pepin Cooperative Services has applied for a Broadband Expansion Grant with the Public Service Commission of Wisconsin to expand access to broadband services in Pierce County who has approved a letter in support for the Broadband Expansion Grant; and

WHEREAS, to further support its application for a Broadband Expansion Grant, Pierce Pepin Cooperative Services and Pierce County Economic Development Corporation enter into an agreement, referred to as a Public Private Partnership Agreement, to assist in this Project by:

The Pierce County Economic Development Corporation has committed to the following contribution: to educate, encourage adoption, and help inform community members of the benefits of fiber-to-the-home.

WHEREAS, the Pierce County Economic Development Corporation desires to enter into a Public Private Partnership Agreement with PPCS in support of this Broadband Expansion Project.

NOW, THEREFORE, BE IT RESOLVED, by the Pierce County Economic Development Corporation to enter into this Public Private Partnership Agreement with Pierce Pepin Cooperative Services to expand fiber-based broadband access and services to unserved and underserved areas of Pierce County.

FISCAL NOTE: Pierce County Economic Development Corporation will have no financial obligation through this agreement.

Adopted by: Pierce County Economic Development	Pierce Pepin Cooperative Services
Corporation	
Graph M Tolean	Marke
Joe Folsom, Executiva Director	Nate Boettcher, President and CEO
3/11/2022	3-11-22
Date	Date

# Exhibit C

# **RESOLUTION NO. 21-32**

# RESOLUTION OF PIERCE COUNTY IN SUPPORT OF BROADBAND INFRASTRUCTURE EXPANSION AND AVAILABILITY

WHEREAS, the infrastructure and availability of broadband is far more prevalent in Wisconsin Cities, however, in more rural areas, including Pierce County, there are gaps in broadband access; and

WHEREAS, in 2020 the COVID-19 pandemic resulted in the increased need for children to attend school remotely, for municipalities to conduct meetings and business remotely, for employees to work remotely, and the need for businesses in the County to have appropriate broadband internet access, and furthermore, the lack of broadband access and availability to Pierce County residents, employers, employees and others became more evident; and

WHEREAS, appropriate broadband access in all corners of our state, including in Pierce County, is crucial for the success of our students, employers, employees, farmers, and the citizens of the County; and

WHEREAS, the growing importance of, and need for, appropriate broadband for businesses. farmers, health care facilities, schools, students, citizens and municipalities is obvious, and is expected to continue as the new normal; and

WHEREAS, there are various financial opportunities becoming available to businesses and utilities through state and federal grant opportunities, via American Rescue Plan Act (ARPA) grant funds and otherwise, for which it will take time to make determinations on who will receive those funds, and many businesses and utilities will be submitting applications for such funds, and seek the support of the County in that endeavor; and

WHEREAS, local governments play an important role in helping to solve the problem of adequate universal broadband access and availability, and Pierce County desires to make it known that it is supportive of the expansion and upgrading of broadband infrastructure and access availability for employees, businesses, and the citizens within Pierce County; and

NOW, THEREFORE BE IT RESOLVED, by the Pierce County Board of Supervisors that it supports the efforts in helping to solve the problem of adequate universal broadband access and availability, and is supportive of the expansion and upgrading of broadband infrastructure and access availability in underserved areas for employees, businesses, and the citizens within Pierce

County.

Dated this 22<sup>nd</sup> day of February, 2022. A Holst, Chair Pierce County Board of Supervisors ATTESTED TO BY: APPROVED AS TO FORM AND LEGALITY BY: Jamie Feuerhelm, County Clerk Bradley D. Lawrence, Corp. Counsel

Adopted:

# **Exhibit D**







March 7, 2022

Steffany Powell Coker, Secretary to the Commission North Tower, 6th Floor 4822 Madison Yards Way Madison, WI 53705

Dear Review Panel Members,

As you consider applications for the 2022 grant cycle of the Broadband Expansion Grant Program, I urge you to consider supporting Pierce Pepin Cooperative Services' broadband expansion project. I am encouraged to see the dedication from this cooperative to expand high-speed internet in a rapidly growing area in our state. This project will have a positive impact on families and businesses in western Wisconsin.

Pierce Pepin Cooperative Services is dedicated to expanding broadband to unserved and underserved areas in rural Wisconsin—they've demonstrated this by connecting over 3,900 locations. This expansion aims to extend high-speed broadband internet in Pierce County, focusing mainly on the Towns of Salem and Clifton. I have been supportive of their efforts to expand broadband in the past and have been encouraged by their work and results. Pierce Pepin Cooperative Services recognizes the need for connecting their communities and they have a strong track record of providing good service.

The COVID-19 pandemic highlighted just how important broadband access is for our communities to thrive and for residents to stay connected. This project's success will create more opportunity for our community by helping our students, businesses and farmers access high-speed internet.

I am proud to represent Wisconsin's 31st Senate District, and I am committed to the betterment of Wisconsin as a whole. Pierce Pepin Cooperative Services has shown a clear and consistent commitment to help our communities receive the broadband services they need, which is why I recommend the approval of this grant application.

Sincerely,

JEFF SMITH State Senator

31st Senate District





State Representative • 93rd Assembly District

February 25, 2022

Steffany Powell Coker Secretary to the Commission Public Serve Commission 4822 Madison Yards Way North Tower 6<sup>th</sup> Floor Madison, WI 53705-9100

# RE: Towns of Clifton and Salem Broadband Grant

Dear Commission Members,

I write to you today to express my support for the Towns of Clifton and Salem receiving the PSC Broadband Expansion Grant.

Increasing broadband access in the Towns of Clifton and Salem would enable community members to access much needed services such as telehealth and virtual school, as well as maintain relationships with friends and family members during the COVID-19 pandemic. This important project will also maximize Western Wisconsin's potential to have a flourishing economy.

I ask you to please consider and approve the Towns of Clifton and Salem Broadband Expansion Grant which will support economic development and foster increased access to improve the lives of the citizens of the townships.

Thank you for your consideration. If you have any questions for me, please feel free to contact me in my office at (608) 266-0660.

Sincerely,

Warren Petryk
State Representative
93rd Assembly District



# SHANNON ZIMMERMAN

STATE REPRESENTATIVE • 30th ASSEMBLY DISTRICT

January 25, 2022

Nate Boettcher President & CEO Pierce Pepin Cooperative Services W7725 US Highway 10 Ellsworth, WI 54011

Dear Mr. Boettcher,

I am writing today to recommend that 3 broadband applications (Phase 3) in Pierce and St. Croix Counties receive fiscal year 2022 Public Service Commission Broadband Expansion Grants. Due to the area's strategic position in a fast growing and dynamic area, broadband grants here would go a long way toward encouraging overall economic growth.

The area is in the midst of rapidly expanding region. To take advantage of the growth we have been offered, it would be strategically smart for the state to ensure residents of the area have broadband access. It is a necessity for businesses, and access is a make or break decision for people when moving to a new area.

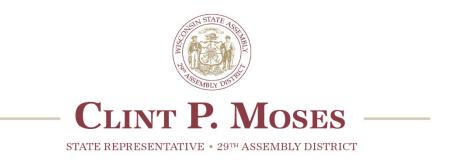
Ensuring the economic success of the area would not only be good for my constituents, but for the State of Wisconsin. I hope you see the same potential, and agree that rewarding Public Service Commission Broadband Expansion Grants would be a wise investment.

Thank you very much for your consideration. Please do not hesitate to contact me to discuss this personally.

Sincerely,

Shannon Zimmerman State Representative 30<sup>th</sup> Assembly District

# **Exhibit D**



March 1, 2022

Chairperson Rebecca Valcq Public Service Commission of Wisconsin 4822 Madison Yards Way Madison, WI 53705

Dear Chairperson Valcq:

I strongly support Pierce Pepin Cooperative Services' broadband expansion grant application to help fund their project in Pierce County.

While Pierce County is just south of the district I represent, I know that this project will greatly benefit the people of Western Wisconsin. In addition, Pierce Pepin Cooperative Services serves families and businesses in my district, and I am familiar with the great service they provide. Broadband connection is becoming increasingly important for the lives and economic wellbeing of rural Americans as they seek to work and learn remotely and utilize telehealth services.

The Townships of Salem and Clifton know how beneficial this grant can be. This project is proactive and will provide residents with all the new opportunities that broadband connection can bring. I thank you for your fair and full consideration of this application.

Sincerely,

Clint P. Moses State Representative

29<sup>th</sup> Assembly District

# **Exhibit E**



20701 Cooperative Way Dulles, Virginia 20166 703-467-1800 | www.nrucfc.coop

November 6, 2020

Mr. Nate Boettcher CEO Pierce Pepin Cooperative Services P.O. Box 420 Ellsworth, WI 54011

Dear Mr. Boettcher:

The National Rural Utilities Cooperative Finance Corporation ("CFC") hereby confirms that, as of the date herein, Pierce Pepin Cooperative Services ("Pierce Pepin"), has availability under committed long term credit facilities up to \$8,500,000 for the financing of additional utility plant and has availability under existing line of credit facilities up to \$2,000,000 to support its short-term general working capital needs. Pierce Pepin has applied for an additional \$30,000,000 in financing to support its broadband project; the application is pending approval.

Advances under all credit facilities are subject to the specific provisions of the credit documentation governing each facility, including fulfillment of certain conditions precedent and the absence of any defaults at the time of the advance.

Pierce Pepin has been a member of CFC since 1970 and is in good standing.

CFC is a \$25 billion financial institution created and owned by America's electric cooperatives fifty years ago. CFC's secured long-term debt is rated "A" by Standard and Poor's, "A1" by Moody's, and "A+" by Fitch. CFC Is a "Well Known, Seasoned Issuer" under Securities and Exchange Commission rules and has longstanding relationships with global and domestic banks.

CFC appreciates your business and looks forward to working with Pierce Pepin on current and future projects. If you have any questions, please feel free to call me at 1-800-424-2954, ex. 1885.

Sincerely,

Jennifer Mink

Associate Vice President



3.11.2022

To whom it may concern:

I am writing to express my support for Pierce Pepin Cooperative Services' efforts to increase broadband internet access in Pierce County, Wisconsin. Not only does access to fast, reliable and affordable internet have direct health benefits as a result of increased access to healthcare providers and health information, 1 but it has indirect health benefits to health deriving from increased economic and educational opportunities for Pierce County residents.

Half of Pierce County is a designated Health Professional Shortage Area (HPSA), meaning we have a shortage of healthcare providers compared to the population. Pierce County has no hospitals within our borders. Two clinics we had in rural areas of our county (Ellsworth and Spring Valley) closed in 2020, further reducing access in in-person local medical care. Pierce County has less primary care providers, dentists, and mental health providers per population than both the state and neighboring St. Croix County (see comparison below).

## Access to Care

# **Primary Care**



2,360

Number of residents for every primary care doctor in Pierce County.



2,040

Number of residents for every primary care doctor in St. Croix County.



1.270

Number of residents for every primary care

County Health Rankings 2021

# **Dental Care**



2,670

Number of residents for every dentist in Pierce County.



Number of residents for every dentist in St. Croix County.



1,410

Number of residents for every dentist in

# **Mental Health Care**



2,040

Number of residents for every mental health provider in Pierce County.



Number of residents for every mental health provider in St. Croix County.



470

Number of residents for every mental health provider in Wisconsin.

### TALK TO US

Phone: 715-273-6755 Fax: 715-273-6854

www.co.pierce.wi.us

### **VISIT US**

412 W Kinne St Ellsworth, WI 54011

### **OUR MISSION**

To promote healthy behaviors, prevent disease and injury, and protect against environmental hazards

<sup>&</sup>lt;sup>1</sup> National Research Council (US) Committee on Enhancing the Internet for Health Applications: Technical Requirements and Implementation Strategies. Networking Health: Prescriptions for the Internet. Washington (DC): National Academies Press (US); 2000. 2, Health Applications of the Internet. Available from: https://www.ncbi.nlm.nih.gov/books/NBK44714/



Pierce County is seeing the direct and real impacts of lack of healthcare access to locally. Only 22% of men over 65 and 20% of women over 65 in Pierce County are up to date on their core clinical preventive services (compared to 32.7% and 28% nationally).<sup>2</sup>

Pierce County Public Health provides a number of clinical services via telehealth. We could greatly increase the number of clients we serve if high-speed internet access was available equitability across the county. During the pandemic, our WIC Supplemental Nutrition program, which provides essential nutrition services and benefits to mothers and their babies, was forced to transition to remote services. We found that many families prefer *not* having to come into the clinic, and would prefer that we continued to offer telehealth services. Additionally, our reproductive health clinic, which provides STI testing and treatment, contraception and sexual health education, transitioned to mostly remote services during the pandemic. This had the positive impact of increasing access to reproductive health services for populations who face transportation challenges. In 2021, a third of our reproductive health clinic visits were conducted via telehealth technology. We are hoping to continue to expand our telehealth offerings in future years based on client preferences.

The continuation and expansion of telehealth services by Pierce County Public Health relies on the availability of broadband internet access. Affordable and quality internet access would also allow us to reach more diverse audiences in rural areas of the county who have traditionally been underserved. This access would result in real health impacts on the health status of Pierce County residents.

Thank you for your consideration,

Docusigned by:

Lyslinn Snyder

DE5568760E0000B

AZ Snyder

Health Officer and Public Health Director

<sup>2</sup> PLACES Project

# **Exhibit G**

ESTIMATED CONSTRUCTION BOM FOR: Town of Clifton

Taps Meters Aerial UG 603 0 10.00 65.00

Unit Description  WINDERS STATE, TURNISHER, 12 (17th in VIDE, 20 to 1)  Squire flat wealter, 2' square x 1/8" thick with 13126 description for the SVP description of Calentared on Configuracy with NEMA PH-10.  Square flat wealter, 2' square x 1/8" thick with 13126 description for the SVP description of the SVP descripti	Est Build Qty  736  48  20  80  1  184  20  250  368  368  5  11  128  90  20  20
Square flat washer, 2" square 1/8" thick with 11/16 Easter for the "Off Contended For 1/8" (Section 11/16 Easter for 1/8")) (Section 11/16 Easter for 1/8") (Section 1	736  48  20  80  1  184  20  250  368  368  5  11  128  90  50  20
Galvanezee per ASTM A-153 or ASTM 8665, RSI Sisted, d Washers, fat EYEVELT, THAMELET, Sylle Threaded Thimbleye** for attaching to 5/8** thru-botts or threaded end charging for a raige Thimbleye* both for straight-away head goy. Drop-forged IVELET, THAMELET, Sylle Syl	48  20  80  1  184  20  250  368  368  318  5  11  128  90  50
glavanized steel.  FYELET, THRMBLEYE, 5/8 No Threads. Trimibleye* eyelet used on ordary 3/8" michie botts for straight-away guys. Rounded groove protects guy strand from sharp limits and bends. Deep foregrein glavanized steel. Construction for high strength spliciations.  ##ADEBII 5004 EA 25  ##ADEBII	20 80 1 184 20 250 368 368 3108 5 11 128
Strand from sharp links and bench, Drop-forget galavariated steel. Construction for high strength applications.   Hubbell   5004   EA   50	80 1 184 20 250 368 368 5 11 128
BS COPPER WIRE FT  WARDOUS  BILL BORNONG CAMP  Used to Bood 14" to 7/16" Strand to 8th to 2/0 Copper Wire  SPACE, STREE GUT WIRE LEVEN  Formed Wire liste Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LEVEN  Formed Wire Liste Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LIST Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LIST Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LIST Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LIST Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LIST Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LIST Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LIST Splice for 14" Guy Strand  BEALDRANG, GUT WIRE LIST Splice for 14" Guy Strand  MIP Type curved lock mut for 5/8" diameter to 10t, tapped garbanized per ASTM A-153. RUS listed, ex- Locknut.  MIP Type curved lock mut for 5/8" diameter x 8" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lbs.  Square head machine bolt, 5/8" da. x 10" long with 2 (MACHINE, 50) READ, 5/8" x 10"  Square head machine bolt, 5/8" diameter x 12" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lbs.  BROIT, MACHINE, 50 READ, 5/8 in x 10"  Square head machine bolt, 5/8" diameter x 12" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lbs.  BROIT, MACHINE, 50 READ, 5/8 in x 10"  Square head machine bolt, 5/8" diameter x 12" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lbs.  BROIT, MACHINE, 50 READ, 5/8 in x 10"  Square head machine bolt, 5/8" diameter x 12" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lbs.  BROIT, MACHINE, 50 READ, 5/8 in x 10"  Square head machine bolt, 5/8" diameter x 10" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lbs.  BROIT, MACHINE, 50 READ, 5/8 in x 10"  Square head machine bolt, 5/8" diameter x 10" long with 6" thread	1 184 20 250 368 368 5 11 128 90 50
Section   Sect	20 250 368 368 5 11 128 90 50
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Square head machine bolt, 5/8" diameter x12" long with psi tread part x15 x1400 lb. bit of lang palvanized per ASTM A-153 and machine bolt, 5/8" diameter x12" long with psi tread and cone point. Includes one square nut. Rated tensile strength is 12,400 lb. bit of lang palvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x12" long with for thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lb. bit of lang palvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x10" long with for thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lb. bit of lang palvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x10" long with for thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lb. bit of lang palvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x10" long with for thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lb. bit of lang palvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x10" long with for thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lb. bit of lang palvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x10" long with for thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 lb. bit bell language and language a	128 90 50 20
Square head machine bolt, 5/8" diameter x 12" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galamized per ASTM A-153.  Square head machine bolt, 5/8" diameter x 14" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galamized per ASTM A-153.  Square head machine bolt, 5/8" diameter x 16" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galamized per ASTM A-153.  SQuare head machine bolt, 5/8" diameter x 16" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galamized per ASTM A-153.  SQuare head machine bolt, 5/8" diameter x 18" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galamized per ASTM A-153.  SQuare head machine bolt, 5/8" diameter x 10" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galamized per ASTM A-153.  SQUare head machine bolt, 5/8" diameter x 20" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galamized per ASTM A-153.  SQUare head machine bolt, 5/8" diameter x 20" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galamized per ASTM A-153.  SQUARE HEAD, 5/8m x 22m SQUARE HEAD, 5/8m x 22	90 50 20
SQuare head machine bolt, 5/8" diameter x14" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8814   EA 25   SQuare head machine bolt, 5/8" diameter x14" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8816   EA 25   SQUare head machine bolt, 5/8" diameter x16" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8816   EA 25   SQUare head machine bolt, 5/8" diameter x18" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8818   EA 25   SQUare head machine bolt, 5/8" diameter x18" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8820   EA 30   SQUare head machine bolt, 5/8" diameter x20" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8820   EA 30   SQUare head machine bolt, 5/8" diameter x20" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8820   EA 30   SQUare head machine bolt, 5/8" diameter x20" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8822   EA 30   SQUare head machine bolt, 5/8" diameter x20" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400   Hubbell   8822   EA 30   SQUARE	50
80.17, MACHNES, OH EAD, 5/8/m x 16/m Square head machine bolt, 5/8" diameter x 15' long with 5' thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galvanized per ASTM A-153.  80.17, MACHNES, OH EAD, 5/8/m x 18/m Square head machine bolt, 5/8" diameter x 18" long with 5' thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x 18" long with 6' thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galvanized per ASTM A-153.  80.17, MACHNES, OH EAD, 5/8/m x 20m Ibs. Hot dip galvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x 22' long with 6' thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x 22' long with 6' thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galvanized per ASTM A-153.  Square head machine bolt, 5/8" diameter x 10" length, with 4" thread length and cone point includes one square nut. Internal eye dimensions are Bubbell  Straight thimbleye bolt, 5/8" diameter x 10" length, with 4" thread length and cone pointed end. Includes one square nut. Internal eye dimensions are Hubbell  Straight thimbleye bolt, 5/8" diameter x 10" length, with 4" thread length and cone pointed end. Includes one square nut. Internal eye dimensions are 9/16" x 1/16".	20
80.17, MACHNE, SQ HEAD, 5/8/m x 18/m Square head machine bolt, 5/8" diameter x 18" long with of thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 BS, Had dig palvanized per ASTM A-158.  80.17, MACHNE, SQ HEAD, 5/8/m x 20m Square head machine bolt, 5/8" diameter x 20" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 BS, Had dig palvanized per ASTM A-158.  80.17, MACHNE, SQ HEAD, 5/8/m x 22m Square head machine bolt, 5/8" diameter x 22" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 BS, Had dig palvanized per ASTM A-158.  Square head machine bolt, 5/8" diameter x 22" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 BS, Had dig palvanized per ASTM A-158.  SQUARE HEAD, 5/8/m x 22m SQUARE HEAD, 5	*
80.IT, MACHINE, SQ HEAD, 5/8in x 20in Square head machine bolit, 5/8" diameter x 20' long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galvanized per ASTM A-153.  SQuare head machine bolit, 5/8" diameter x 22" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galvanized per ASTM A-153.  Square head machine bolit, 5/8" diameter x 22" long with 6" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400 Ibs. Hot dip galvanized per ASTM A-153.  Straight thimbleye bolt, 5/8" diameter x 10" length, with 4" thread length and cone pointed end. Includes one square nut. Internal eye dimensions are 9/16" x 11/16".  EA 25	20
Ibs. Hot dip galvanized per ASTM A-153.  BOLT, MACHINE, SQ HEAD, 5/8 in x-22 in  Square head machine bolt, 5/8" diameter x 22" long with 5" thread length and cone point. Includes one square nut. Rated tensile strength is 12,400  Ibs. Hot dip galvanized per ASTM A-153.  Straight thimbleye bolt, 5/8" diameter x 10" length, with 4" thread length and cone pointed end. Includes one square nut. Internal eye dimensions are  Straight thimbleye bolt, 5/8" diameter x 10" length, with 4" thread length and cone pointed end. Includes one square nut. Internal eye dimensions are  Hubbell  5510  EA  25	
Bb. Hot dig galvanized per ASTM A-153.	20
9/16" x 11/16".	*
BOLT, THIMBLEYE, STRAIGHT, 5/8in x 12in	2
Straight thimbleye bolt, 5/8" diameter x 12" length, with 6" thread length and cone pointed end, includes one square nut. Internal eye dimensions are Hubbell 5512 EA 25 9/16" x 110". Rated tensile strength is 12,400 lbs.  810.17, THIMBLEYE, STRAIGHT, 5/8in x 14 inin	10
Straight thimbleye bolt, 5/8" diameter x 14" length, with 6" thread length and cone pointed end, includes one square nut. Internal eye dimensions are Hubbell 5514 EA 25 9/16" x 11/15". Radde tendes terreigh is 12,000 lbs.	10
CLAMP, SUSPENSION, STRAIGHT  Messenger suspension clamp is used with 5/8" diametr through bolt to support cable at poles on straight runs. Through bolt also serves as clamping Hubbell 7903 EA 25 member. Clamp includes two 15/8" carriage bolts. Accommondates strand size 1/4" through 17/16".	368
CLAMP, SUSPENSION, ANGLE, 5/8"         Hubbell         7902L         EA         25           1/4" thru 7/16" Strand Range         Hubbell         7902L         EA         25	55
BRACKET, CORNER ATTACHMENT, DEADEND  Corner Attachment Bracket is an integral thimble eye pole attachment for deadending strand and guy grips at angles of 35' to 60'. Pole mounting  surface is curved with integral spurs. Accommodates Maximum 1/2' diameter strand/guy grips.	10
CONNECTOR, SPLIT BOLT For copper to copper 2-wire connections. For #8 to #4AWG wire.  Hubbell SBN4 EA 100	184
EYE, AUXILIARY, S/8in. TO 1in.  Auxiliary Eye bolts to existing anchor roots to add an additional point of attachment for guying. Accomodates rod diameters of 5/8" through 1". Hubbell BB155A EA 20	70
Minimum ultimate tensile strength is 18,000 lbs.  AUX Eye for 1 1/4" Rod Allied Bolt 3162 EA 10	10
Economy Guy Marker, UV Stabilized, yellow 1 1/4* Diameter, Round 8' Long Attachment Device UTC (Universal Cable Tie)  Preformed Line Products  PGM59838  EA 30  CLAMP, ANCHOR-EYE BONDING	80
Thimbleye® bonding clamps maintain a dependable mechanical and electrical pressure contact between guy strand and anchor rod when the guy is  ### Hubbell G5060  ### BA 200  ### Part of the grounding system.	11
CLAMP, ANCHOR-EYE BONDING Twineye* bonding clamps maintain a dependable mechanical and electrical pressure contact between guy strand and anchor rod, when the guy is part of the grounding system.  Cross Note: Or GCSS96  EA 100	10
CLAMP, ANCHOR-EYE BONDING Tripleye* bonding clamps maintain a dependable mechanical and electrical pressure contact between guy strand and anchor rod, when the guy is part of the grounding system.  EA 100	22
SPACER, BELL CABLE 1/2 IN.  Bell shaped spacer used to create a 1/2" space between messenger strand and aerial cable. Black plastic.  Hubbell PSC2080421 CASE 1000	1,471
D Lashing Wire Clamp (bug rus) 1st Option         Hubbell         CDLC         BOX         100           D Lashing Wire Clamp (bug rus) 2nd Option         PPC         PPC 26-09010         BOX         100	0
U 128/ming wire Limpt (oug mu) 2nd Option PPC PPC PPC 2000U BUX 100 STRAP, LASHING, STRIKES STEEL, 01 N Hubbell CLOSSLC CARTON 500	1,471
STRAP, LASHING, STAINLESS STEEL, 16 IN Hubbell C16SSLC CARTON 500	60
Buckle lashing Strap (Deltek Buckel) Hubbell CBPLLC EA 25	60
Strap Lashing ( Deltek 50')         Hubbell         CSO PLLC         EA         10           OPTILOOP, 17' Plastic w/ Tap BKTS         Hubbell         FOSP17TMK         Pair         1	12
OptiLoop 17" Strand/Messenger Aerial Slack Storage System, Plastic, Single-wrap  ANCHOR, NO WRENCH: Gin. TRIPLEYE*66" (1676 mm) long with 6" (203 mm) Helix Tripleye. Hubbell 6346 EA 1	10
Applor EVD (D1ST) 9in (E/0° 9.2/4° Dod)	TBD based on client and
Hubbell   88135   EA   6	conditions  TBD based on client and conditions
Rod, Expanding / Cross-Plate Anchor: 3/4" X 8" TWINEYE. (Used with EXP Anchor Hubbell 5358 EA 5	TBD based on client and conditions TBD based on client and
Anchor, Rock, 1.75°X84" 3/4IN Rod Hubbell R384 EA 4	conditions  TBD based on client and
Anchor, Rock, 1.75°X53° 3/4N Rod Hubbell R353 EA 4 STANDEF, FIRENDASS, 15-Y12", COMMUN.	conditions
12" Medium Duty 15" Communication Standoff Bracket Hubbell 1CSM12 EA 6  STANDORS ENERGI LESS STEVET COMMUNICATION STANDORS STANDO	1
18" Medium Duty 15" Communication Standoff Bracket	1
LASHING WIRE (FT) 1200' coil (.40mm)         CENTRAL WIRE         LA-302045         Coil         6           LASHING WIRE (FT) 1600' coil (.38mm)         CENTURY WIRE         .03855302ACW         Coil         6	62
CABLE GUARD, 2" X 10 Polyethylene cable guard 2.63" inside diameter x 10" long. Gray plastic, in a flanged "U" shape with 8 mounting holes per side.	15
One end is belied to allow for overlap with an adjacent cable guard.  2" x 10" Belied U-Guard, Grey, Ribbed Surface. With UV Protection Electrical Materials Company PE2-UG10 EA 15	95
SCREW, LAG, 1/4in THD, 2in, w/WASHER Hex head lag screw with neoprene cushioned steel washer for securing composite cable guards. Hubbell PSC2050504 EA 500	1,722
MESSENGER 6N 1/4 FPS Guardian 1'4"FPS FT 5000  MESSENGER 6N 1/4 FPS Guardian 1'4"FPS FT 5000	55,440
MESSENGER 6M 1/4 EHS (2nd option)         Bekaert         118994         FT         5000           MESSENGER 6M 1/4 EHS (3rd option)         National         14AEHS-500R         FT         5000	Manual Entry  Manual Entry
NESSENDER ON 1/4 ETD (310 g0001)   NESTINE   144EED-300K   FT   5000   12 CT AMMORED FIRST D-121-LA-SW-13NS   COMMSCOPE   810729/108   FT   15500	320,338
24 CT ARMORED FIBER: D-024-LA-SW-F12NS COMMSCOPE 8107299/D8 FT 15500	33,897
48 CT ARMORED FIBER: D-048-U-8W-F12NS COMMSCOPE 8107300/D8 FT 15500	25,194
96 CT ARMORED FIBER: D-096-LA-BW-F12NS CDMMSCOPE 8107303/D8 FT 15500	26,767
144 CT ARMORED FIBER: D-144-LA-8W-F12NS         COMMSCOPE         8107305/DB         FT         15500           144 CT Armored Fiber Yellow Tracer         COMMSCOPE         8108111/DR - D-144-LA-8W-F12YI         FT         15500	49,203 Manual Entry
144 CT Armored Fiber Yellow Tracer         COMMSCOPE         8108111/08 - D-144-L4-8W-F12YL         FT         15500           96 CT Armored Fiber Yellow Tracer         COMMSCOPE         810009109/D8 - D-096-L4-8W-F12YL         FT         15500	Manual Entry  Manual Entry
	Manual Entry

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Unit Description	Preferred Vendor	Part Number	Client Part # UC	M Package Qty	Est Build Qty
96 CT ARMORED FIBER GREEN TRACER	COMMSCOPE	8107827/DB - D-096-LA-8W-F12GR	FI		Manual Entry
24 CT ADSS Fiber: 024f,singlemode,Lose Tube, Med Load (Hut to Sub)  Conduit, HDPE, 1.25 SDR 11, SmooothWall, ORG,1000# pull tape,8000'	COMMSCOPE Blue Diamond	S-24-LN-8W-F12NS/NFB BDI133OR-T10	FI		Manual Entry 353,496
12F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP	STERLITE	MA-0012F-SN-01T-F-BU-US	FI		320,338
24F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP	STERLITE	MA-0024F-SN-02T-F-BU-US	FI	15500	33,897
48F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP	STERLITE	MA-0048F-SN-04T-F-BU-US	FI		25,194 26,767
96F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP  96F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP Green Strip	STERLITE STERLITE	MA-0096F-SN-08T-F-BU-US MA-0096F-SN-08T-F-BU-GR	FT		Manual Entry
96F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP Yellow Strip	STERLITE	MA-0096F-SN-08T-F-BU-YL	FI		Manual Entry
144F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP	STERLITE	MA-0144F-SN-12T-F-BU-US	FI		49,203
144F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP Green Strip	STERLITE	MA-0144F-SN-12T-F-BU-GR	F1		Manual Entry Manual Entry
144F SM loose Tube, Single Armor Single Jacket, NOVA / G.657.A1, OSP Yellow Strip Lubricant, Cable Pulling for fiber optic 5 GAL	STERLITE Various	MA-0144F-SN-12T-F-BU-YL F-640	E/		4
Black Electric Tape, Log of 10 (88 tape)	3M	3M-88T-3/4x60	E		1,300
FIBER MARKER - RHINO 72" 1 rail orange hybrid	BB MFG	RH1R-72	E/	. 1	589
Test Station Post Marker. ( Locate fiber Marker Post)  Fiber Marker Post NON - Locatable fiber Marker Post	William & Frick William & Frick	TSP-EC-ELECTRIC-6" DM6	E/		Manual Entry  Manual Entry
DUCT COUPLER	B&C	P2C-1.660	E		1,300
PEDESTAL PenCell 23 9/19 x 19 1/16 x 12 3/16 base (96 and below)	Hubbell	AN14HDHB500009	E	. 1	707
PEDESTAL PenCell 30 x 24 x 15 Base (144 count)	Hubbell	AN20HDHB500009	EA	. 1	130
Flower Pot Assembly	Hubbell	PE9AHDH0000LW	E		308
9" Flower Pot Underground Assembly			E		TBD based on client and
5" Reflective Fiberglass whip Marker to ID peds in Deep snow  BOX OB 24X36X24Box, polymer concrete, Tier 22, 24"x36"x24", Straight Wall, Open Bottom	Country Enterprises Hubbell	73516 W(R&W)-10801 PG2436BA24	E/		conditions 195
CVR BD HD 24X36X3/HW-FIBER OPTICS	Hubbell	PG2436BA24 PG2436HA0021	E/		195
Cover, Polymer Concrete, Heavy Duty Tier 15, 24"x36"x3", 1-piece w/2 Bolts BOX OB 30X48X36					
CVR BD HD 30X48X3/HW-FIBER OPTICS	Hubbell	PG3048BA36	E/	. 1	33
Cover, Polymer Concrete, Tier 15 , 30"x48", 1-piece, with 2 Bolts	Hubbell	PG3048HA0021	E/		33
OFDC-C12, SC/APC, 2 DropTap 10dB, 2 Adapters, No mounting kit, 96 splices.  OFDC-C12, SC/APC, 2 DropTap 12dB, 2 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/20-2T10-N-96	E/		53
OFDC-C12, SC/APC, 2 DropTap 12dB, 2 Adapters, No mounting kit, 96 splices.  OFDC-C12, SC/APC, 2 DropTap 14dB, 2 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/20-2T12-N-96 OFDC-C12-S2/20-2T14-N-96	E/		60 52
OFDC-C12, SC/APC, 2 DropTap 15dB, 2 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/20-2T15-N-96	E/	. 1	57
OFDC-C12, SC/APC, 2 DropTap 17dB, 2 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/20-2T17-N-96	E/		54
OFDC-C12, SC/APC, 2 DropTap 19dB, 2 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/20-2T19-N-96	E/		51
OFDC-C12, SC/APC, 2 DropTap 21dB, 2 Adapters, No mounting kit, 96 splices.  OFDC-C12, SC/APC, 2 DropTap 4dB Terminating, 2 Adapters, No mounting kit, 96	COMMSCOPE	OFDC-C12-S2/20-2T21-N-96 OFDC-C12-S2/20-2T04T-N-96	E/		11 8
OFDC-C12, SC/APC, 2 DropTap 5dB, 2 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/20-2T05-N-96	E		5
OFDC-C12, SC/APC, 2 DropTap 7dB, 2 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/20-2T07-N-96	E/		14
OFDC-C12, SC/APC, 2 DropTap 8dB, 2 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/20-2T08-N-96	E/		29
OFDC-C12, SC/APC, 4 DropTap 10dB, 4 Adapters, No mounting kit, 96 splices.  OFDC-C12, SC/APC, 4 DropTap 11dB, 4 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/40-4T10-N-96 OFDC-C12-S2/40-4T11-N-96	E/		6 27
OFDC-C12, SC/APC, 4 DropTap 13dB, 4 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/40-4T13-N-96	E		40
OFDC-C12, SC/APC, 4 DropTap 15dB, 4 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/40-4T15-N-96	E/	. 1	21
OFDC-C12, SC/APC, 4 DropTap 17dB, 4 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/40-4T17-N-96	E/		26
OFDC-C12, SC/APC, 4 DropTap 7dB Terminating, 4 Adapters, No mounting kit, 96  OFDC-C12, SC/APC, 4 DropTap 9dB, 4 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/40-4T07T-N-96 OFDC-C12-S2/40-4T09-N-96	E/		4
OFDC-C12, SC/APC, 4 DropTap 19dB, 4 Adapters, No mounting Nt, 96 splices.	COMMSCOPE	OFDC-C12-S2/40-4T19-N-96	E		26
OFDC-C12, SC/APC, 4 DropTap 21dB, 4 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/40-4T21-N-96	E	. 1	17
OFDC-C12, SC/APC, 8 DropTap 11dB Terminating, 8 Adapters, No mounting kit, 96	COMMSCOPE	OFDC-C12-S2/80-8T11T-N-96	E/		1
OFDC-OFDC-C12, SC/APC, 8 DropTap 12dB, 8 Adapters, No mounting kit, 96 OFDC-C12, SC/APC, 8 DropTap 14dB, 8 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/80-8T12-N-96 OFDC-C12-S2/80-8T14-N-96	E/		2
OFDC-C12, SC/APC, 8 DropTap 15dB, 8 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/80-8T15-N-96	E		4
OFDC-C12, SC/APC, 8 DropTap 17dB, 8 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/80-8T17-N-96	E	. 1	5
OFDC-C12, SC/APC, 8 DropTap 19dB, 8 Adapters, No mounting kit, 96 splices.	COMMSCOPE	OFDC-C12-S2/80-8T19-N-96	E/		10
OFDC-C12, SC/APC, 8 DropTap 21dB, 8 Adapters, No mounting kit, 96 splices.  OFDC-C12 Closure, SPLICE ONLY, 48 Fiber	COMMSCOPE	OFDC-C12-S2/80-8T21-N-96 OFDC-C12-NN/00-NN-N-96-US86	E/		20
	COMMSCOPE		_		
OFDC-C12-1 Pole Mount Kit (One Piece)( 1 for ea OFDC). OFDC-C12 Pole Mount Bracket Kit with 2 inch extension to accommodate cable slack.	COMMSCOPE COMMSCOPE	760250986	EA	. 25	616
OFDC - C12 Strand Mount Kit		· ·	E/		2
	COMMSCOPE	760250986		. 1	
OFDC - C12 Strand Mount Kit  B BOND CLAMP Single stud with double nut per stud. For 0.5"–0.8" cable. 0	COMMSCOPE COMMSCOPE Hubbell Hubbell	760250986 EM2200-001 EM20B1 EM8100410	E)	1 10 10	2 15 15
OFDC - C12 Strand Mount Kit  B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  0  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE	760250986 EM2200-001 EM20B1 EM8100410 760248511	EJ EJ BG	1 10 10 10 25	2 15 15 33
OFDC - C12 Strand Mount Kit  B BOND CLAMP Single stud with double nut per stud. For 0.5"–0.8" cable. 0 0	COMMSCOPE COMMSCOPE Hubbell Hubbell	760250986 EM2200-001 EM20B1 EM8100410	E) E) BC	1 10 10 X 25 1	2 15 15
OFDC - CL2 Strand Mount Kit  B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  O OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC	COMMSCOPE COMMSCOPE Hubbell Hubbell COMMSCOPE COMMSCOPE	760250986 EM2200-001 EM2081 EM8100410 760248511 EM0958-001	EJ EJ BG	1 10 10 X 25 1	2 15 15 33 38
OFDC - CL2 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For D5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE (H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE (H-Frames)-Default to this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-3rd choice if American Products and Multillink not available	COMMSCOPE COMMSCOPE Hubbell Hubbell COMMSCOPE COMMSCOPE COMMSCOPE American Products MULTILINK Hubbell	760250866 EM2200-001 EM200-1 EM2001 EM8100410 760248511 EM0958-001 AM1-3432*F5F 065-068-10 BAFOB	E E E E E E E E E E E E E E E E E E E	1 10 10 X 25 1 2 2 2 2	2 15 15 33 38 22 Manual entry Manual entry
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable. 0 OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—Total choice if American Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—3rd choice if American Products and Multilink not available TYCO 8 SPULCE LOSSURE (96 count laterari)	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  American Products  MULTILINK  Hubbell  COMMSCOPE	760250986 EM2200-001 EM2081 EM8100410 760248511 EM958-001 AM-3432-FSF 065-058-10 BAF0B FOSC-450-B6-4-NT-O-TOV	E E E E E E E E E E E E E E E E E E E	1 10 10 X 25 1 2 2 2 1 1	2 15 15 33 38 22 Manual entry Manual entry
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  O OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE (H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE (H-Frames)-Default to this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-3rd choice if American Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-3rd choice if American Products and Multillink not available	COMMSCOPE COMMSCOPE Hubbell Hubbell COMMSCOPE COMMSCOPE COMMSCOPE American Products MULTILINK Hubbell	760250866 EM2200-001 EM200-1 EM2001 EM8100410 760248511 EM0958-001 AM1-3432*F5F 065-068-10 BAFOB	E E E E E E E E E E E E E E E E E E E	1 10 10 X 25 1 1 2 2 2 2 2 1 1 2 2	2 15 15 33 38 22 Manual entry Manual entry
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  O OFDC Armor Grounding Kit { One for each UG OFDC Splice Location} Box of 25 Ground wire for OFDC  POLE MOUNT FIBER STORAGE { H-Frames}—Default to this one if available POLE MOUNT FIBER STORAGE { H-Frames}—Default to this one if available Aluminum 3 pc Pole mount Fiber Storage { H-Frames}—3rd choice if American Products and Multilink not available TYCO B SPLICE CLOSURE (96 count lateral) TYCO B SPLICE TRAY[24]	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  AMerican Products  MULTILINK  Hubbell  COMMSCOPE  COMMSCOPE  COMMSCOPE	760250866 EM200-001 EM200-101 EM30010 760248511 EM958-001 AM-3432-F5F 065-058-10 BAF0B FOSC-458-6-ANT-O-TOV FOSC-ACC-8-BTRAY 24	E E E E E E E E E E E E E E E E E E E	1 10 10 10 X 25 X 1 1 2 2 2 1 1 2 2 1 1	2 15 15 33 8 22 Manual entry Manual entry 8
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each U.G OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—Default to this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—3rd choice if American Products and Multilink not available TYCO 8 SPUCE CLOSURE (96 count lateral) TYCO 8 SPUCE TRAY[24] TYCO D SPUCE CLOSURE (146 count lateral) TYCO D SPUCE CLOSURE (146 count lateral) TYCO D SPUCE CLOSURE (146 count lateral) Area Spuce TRAY[24] Area Spuce TRAY[25] Aerial strand mounting clamp and accessories (FOSC)	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  American Products  MULTILINK  Hubbell  COMMSCOPE	760250866 EM2200-001 EM2001 EM2001 EM300410 760248511 EM958-001 AM-3422-FsF 065-058-10 BAF0B FOGC-450-B64-NT-0-TOV FOSC-ACC-B-STRAY 24 FOSC-450-06-ENT-0-D6V FOSC-45C-D-TEAV-72-KIT FOSC-ACC-450-AERIAL-CLIMP	E E E E E E E E E E E E E E E E E E E	1 10 10 X 25 1 1 2 2 2 1 1 1 2 2 1 1 1 1 1 1 1 1	2 15 15 33 38 22 Manual entry Manual entry 8 30 8 15
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  O OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Befault to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—Befault to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—Befault to this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—3rd choice if American Products not available TYCO B SPLICE FIREM (96 count lateral) TYCO B SPLICE FIREM (14) TYCO B SPLICE FIREM (14) TYCO D SPLICE FIREM (14) TYCO D SPLICE FIREM (15) TYCO D SPLICE FIREM (15) Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET( For FOSC Closure)	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  American Products  MULTILINK  Hubbell  COMMSCOPE	760250986 EM2200-001 EM200-001 EM800010 760248511 EM9058-001 AM-3432-FSF 065-058-10 BAF0B FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-TRAY-72-KIT FOSC-ACC-D-TRAY-72-KIT FOSC-ACC-D-TRAY-72-KIT FOSC-ACC-D-TRAY-12-KIT FOSC-ACC-WALL_POLE	E E E E E E E E E E E E E E E E E E E	1 10 10 10 X 25 X 1 1 2 2 1 1 1 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 2 2 1 10 10 10 10 10 10 10 10 10 10 10 10 1	2 15 15 33 38 22 Manual entry Manual entry 8 9 30 8 15
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Pole alto to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—And choice if American Products not available Aluminum 3 pc Pole mount Fiber Storage ( H-Frames)—And choice if American Products and Multilinik not available TYCO B SPUCE CLOSURE (96 count lateral) TYCO B SPUCE TRAY(24) TYCO - SPUCE CLOSURE (144 count lateral) TYCO D SPUCE TRAY(24) Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (For FOSC Closure) SPUCE SLEEVES - TYCO 60 MM	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  American Products  MULTILINK  Hubbell  COMMSCOPE	760250866 EM2200-001 EM2001 EM2001 EM300410 760248511 EM958-001 AM-3422-FsF 065-058-10 BAF0B FOGC-450-B64-NT-0-TOV FOSC-ACC-B-STRAY 24 FOSC-450-06-ENT-0-D6V FOSC-45C-D-TEAV-72-KIT FOSC-ACC-450-AERIAL-CLIMP	E E E E E E E E E E E E E E E E E E E	1 10 10 10 25 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 15 15 33 38 22 Manual entry Manual entry 8 30 8 15
OFDC - CL2 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For DS*-0.8" cable.  OFDCArmor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE (H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE (H-Frames)-Bradut to this one if available POLE MOUNT FIBER STORAGE (H-Frames)-Bradut to this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-3rd choice if American Products not available TYCO B SPUEC ELOSURE (96 count lateral) TYCO B SPUEC ELOSURE (144 count lateral) TYCO D - SPUEC FIRATS (17) TYCO D - SPUEC FIRATS (17) Aetala strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (For FOSC Closure)	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  American Products  MULTILINK  Hubbell  COMMSCOPE	760250986 EM2200-001 EM200-001 EM2001 FM8100410 760248511 EM0958-001 AM-3432-F5F 065-059-10 BAFOB FOSC-450-B6-4NT-O-TOV FOSC-450-B6-6NT-O-D6V FOSC-4CC-B7-BAY-72-KIT FOSC-ACC-B7-BAY-72-KIT FOSC-ACC-WALL_POLE 369305000	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 33 38 22 Manual entry Manual entry 8 30 8 15 0 2 1,025
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each U.G OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Braid that to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—And choice if American Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—And choice if American Products and Multilink not available TYCO B SPUCE CLOSURE (184 count lateral) TYCO B SPUCE TANY (24) TYCO D - SPUCE TRAY (24) TYCO D - SPUCE TRAY (27) Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRANCASE (For FOSC Closure) SPUCE SLEEVES - TYCO 45 MM ( Used in OFDC'S) WIFES (280 wipes per box)(33 Days - case) 8400 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 2 1x16 FPS PPP module, 32 SC/APC Side adapters installed	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  COMMSCOPE  American Products  MULTILINK  Hubbell  COMMSCOPE	760250866 EM2200-001 EM2001 EM2001 EM2001 FM300410 760248511 EM95S-001 AM-3432-F5F 065-058-10 BAF0B BAF0B FOSC-450-B6-4-NT-O-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-D6-6-NT-O-D6V FOSC-ACC-D-TEAV-72-KIT FOSC-ACC-WALL_POLE 869905000 SMOUV-1120-02	E E E E E E E E E E E E E E E E E E E	1 10 10 10 X 25 1 1 2 2 1 10 1 2 2 1 10 1 10 1 10 1	2 15 15 33 38 22 Manual entry Manual entry 8 30 8 115 0 2 1,025 Manual entry 1
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames).—Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames).—And choice if American Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames).—And choice if American Products and Multilink not available TYCO 8 SPLICE CLOSURE (96 count lateral) TYCO 9 SPLICE TRAY(24) TYCO 9 SPLICE TRAY(24) TYCO 9 SPLICE TRAY(25) APPLICE CLOSURE (144 count lateral) TYCO D SPLICE TRAY(27) Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (FOF FOSC Closure) SPLICE SLEEVES - TYCO 60 MM (Used in OFDC's) WIPES (280 wipes per box)(30 bo = 2 case) 800 wipes BUDI 5, Splitter Terminal includes 1 feeder splice tray, 1/32 FPS PPP module, 23 SC/APC slice adapters installed	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE	760250866 EM2200-001 EM2001 EM2001 EM2001 FM300410 760248511 EM95S-001 AM-3432-F5F 065-058-10 BAF0B FOGC-450-86-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-06-6-NT-0-D6V FOSC-ACC-D-TEAV-72-KIT FOSC-ACC-WALL_POLE 506905000 SMOUV-1120-02 S-8115 BUID-SA1325SM-MV BUID-SA1325SM-MV	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 33 38 22 Manual entry Manual entry 8 30 8 15 0 2 1,025 Manual entry 1 Manual entry
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames) - Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames) - Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames) - Pard choice if American Products and Multilini not available TYCO B SPLICE CLOSURE (96 count lateral) TYCO B SPLICE TRAY(28) TYCO D S PULCE TRAY(28) TYCO D SPLICE TRAY(28) TYCO D SPLICE TRAY(28) SPLICE SUBJECT (244 count lateral) TYCO D SPLICE TRAY(28) TYCO D SPLICE TRAY(27) Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (FOR FOSC Closure) SPLICE SLEEVES - TYCO 60 MM SPLICE SLEEVES - TYCO 60 MM (Used in OFDC's) WIPES (280 wipes per box)(30 Dex = case) 8400 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 132 FFS PPP module, 32 SC/APC slice adapters installed BUDI S, Terminal includes 1 feeder splice tray, 132 FFS PPP module, 32 SC/APC slice adapters installed FITTING, GUY, SIDEVALE, FOLE END	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  COMMSCOPE  AMerican Products  MULTILINK  Hubbell  COMMSCOPE  COMMSCOPE	760250866 EM2200-001 EM200-001 EM2001 EM2001 760248511 EM958-001 AM-3422-F5F 065-058-10 BAF0B BAF0B FOSC-450-B6-4-NT-O-TOV FOSC-ACC-B-BTRAY 24 FOSC-450-B6-4-NT-O-DOV TOSC-ACC-B-TRAY-72-KIT FOSC-ACC-B-STRAY 25 EM20000 SM0UV-1120-02 S-8115 BUDI-SAJ825M-MV BUDI-SAJ825M-MV 2x10GALV	E E E E E E E E E E E E E E E E E E E	1 10 2 2 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1	2 15 15 33 38 22 Manual entry Manual entry 8 30 8 15 0 2 1,025 Manual entry 1 Manual entry 1 Manual entry
OFDC - CLZ Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For DS*-0.8" cable.  OFDC Armor Grounding Kit (One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE (H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE (H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE (H-Frames)-OFDC Abose if American Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-3-d choice if American Products and Multillink not available TYCO B SPUCE CLOSURE (96 count lateral) TYCO B SPUCE TERM2[4] TYCO D - SPUCE SPUCE (144 count lateral) TYCO DS PUCE TRANS [7] Aerial strand mounting clamps and accessories (FOSC) TYCO POLE MOUNT BRACKET[ For FOSC Closure) SPUCE SLEEVES - TYCO 45 MM (Used in OFDC's) WIPES (280 wipes per box)(3) box = case) 8400 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 2 116 FPS PP module, 22 SC/APC slide adapters installed BUDI S, Terminal includes 1 feeder splice tray, 2 116 FPS PPP module, 22 SC/APC slide adapters installed	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE	760250866 EM2200-001 EM2001 EM2001 EM2001 FM300410 760248511 EM95S-001 AM-3432-F5F 065-058-10 BAF0B FOGC-450-86-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-06-6-NT-0-D6V FOSC-ACC-D-TEAV-72-KIT FOSC-ACC-WALL_POLE 506905000 SMOUV-1120-02 S-8115 BUID-SA1325SM-MV BUID-SA1325SM-MV	E E E E E E E E E E E E E E E E E E E	1 10 2 2 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1	2 15 15 33 38 22 Manual entry Manual entry 8 30 8 15 0 2 1,025 Manual entry 1 Manual entry
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)-Off and the other in American Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-3rd choice if American Products and Multilirik not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-3rd choice if American Products and Multilirik not available TYCO B SPLICE CLOSURE (96 count laterial) TYCO D SPLICE TRAYS (72) TYCO D - SPLICE TRAYS (72) TYCO D - SPLICE TRAYS (72) Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRAKCET (For FOSC Closure) SPLICE SLEEVES - TYCO 45 MM ( Used in OFDC's) WIFES (280 wipes per bod)(30 box = case) 800 wipes BUD S, Splitter Terminal includes 1 feeder splice tray, 2 1.16 FPS PP module, 32 SC/APC side adapters installed BUD S, Terminal includes 1 feeder splice tray, 2 1.16 FPS PP module, 32 SC/APC side adapters installed BUD IS, Terminal includes 1 feeder splice tray, 2 1.16 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal includes 1 feeder splice tray, 2 1.16 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal includes 1 feeder splice tray, 1.12 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal includes 1 feeder splice tray, 1.12 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal includes 1 feeder splice tray, 1.12 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal includes 1 feeder splice tray, 1.12 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal includes 1 feeder splice tray, 1.12 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal includes 1 feeder splice tray, 1.12 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal includes 1 feeder splice tray, 1.12 FPS PP module, 32 SC/APC side adapters installed SUD IS, Terminal	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  COMMSCOPE  AMerican Products  MULTILINK  Hubbell  COMMSCOPE  COMMSCOPE	760250866 EM2200-001 EM200-001 EM2001 EM2001 760248511 EM958-001 AM-3422-F5F 065-058-10 BAF0B BAF0B FOSC-450-B6-4-NT-O-TOV FOSC-ACC-B-BTRAY 24 FOSC-450-B6-4-NT-O-DOV TOSC-ACC-B-TRAY-72-KIT FOSC-ACC-B-STRAY 25 EM20000 SM0UV-1120-02 S-8115 BUDI-SAJ825M-MV BUDI-SAJ825M-MV 2x10GALV	E E E E E E E E E E E E E E E E E E E	1 10 2 2 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1	2 15 15 33 38 22 Manual entry Manual entry 8 30 8 15 0 2 1,025 Manual entry 1 Manual entry 1 Manual entry
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames) - Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames) - Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames) - Default to this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames) - Parid choice if American Products and Autilinik not available TYCO B SPLICE CLOSURE (96 count lateral) TYCO B SPLICE TRAY(28) TYCO D S PLICE TRAY(28) TYCO D SPLICE TRAY(28) TYCO D SPLICE TRAY(28)  Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (For FOSC Closure) SPLICE SLEEVES - TYCO 60 MM SPLICE SLEEVES - TYCO 60 MM (Used in OFDC's) WIPES (280 wipes per box)(30 Dex = case) 8400 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 1:12 FFS PPP module, 32 SC/APC slice adapters installed BUDI S, Terminal includes 1 feeder splice tray, 1:132 FFS PPP module, 32 SC/APC slice adapters installed FITTING, GUY, SIDEVALK, FOILE END SIdewalk Guy Pole End Plate. Used where space is not available for standard guying, Attach with one 5/8" bolt and two 1/2" lag screws. FITTING, GUY, SIDEVALK, GUY END FITTING, GUY, SIDEVALK, GUY END	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  Hubbell  COMMSCOPE  COMMSC	760250866 EM2200-001 EM2001 EM2001 EM2001 EM300410 760248511 EM95S-001 AM-3432-F5F 065-058-10 BAF0B FOGC-450-86-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-06-6-NT-0-D6V FOSC-ACC-D-TBAY-72-KIT FOSC-ACC-B-8TAY-24 FOSC-ACC-WALL_POLE S06905000 SMOUV-1120-02 S-8115 BUID-SA1325SM-MV BUID-SA1325SM-MV	E E E E E E E E E E E E E E E E E E E	1 10 10 10 X 25 11 1 2 2 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 15 0 2 1,025 Manual entry 1 Manual entry 1 Manual entry 1 Manual entry 1 1 Manual entry 1 1 Manual entry 1 1 1 Manual entry 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For D.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Bridal to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—Bridal to this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—3nd choice if American Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—3nd choice if American Products and Multilini not available YYCO B SPUCE CLOSURE (96 count laterial) TYCO B SPUCE TRAYS (97) TYCO B SPUCE TRAYS (12) TYCO D SPUCE TRAYS (12) TYCO D SPUCE TRAYS (12) Arial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACCET (For FOSC Gostne) SPUCE SLEEVES - TYCO 45 MM ( Used in OFDC's) WIFES (280 Wipes per book) 30 box = case) 8400 Wipes BUDI S, Splitter Terminal Includes 1 feeder splice tray, 2 1x16 FPS PrP module, 23 SC/APC slide adapters installed BUDI S, Terminal Includes 1 feeder splice tray, 2 1x16 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 2 1x16 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 2 1x16 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 1x27 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 1x27 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 1x27 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 1x27 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 1x27 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 1x28 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal Includes 1 feeder splice tray, 1x28 FPS PrP module, 23 SC/APC slide adapters installed SUDI S, Terminal	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  TOMMSCOPE  COMMSCOPE  COMMSCOPE  COMMSCOPE  TOMMSCOPE  COMMSCOPE  COMMSCOPE  TOMMSCOPE  COMMSCOPE  TOMMSCOPE  COMMSCOPE  COMMSCOPE  TOMMSCOPE  TOMM	760250986 EM2200-001 EM200-001 EM200-001 EM8100410 760248511 EM958-001 AM-3432-FSF 065-058-10 BAF0B FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-8TRAY-24 FOSC-450-B6-6-NT-0-D6V FOSC-ACC-B-TRAY-72-KIT FOSC-ACC-B-7EAN-72-KIT FOSC-ACC-S-8-RITAL-CLMP FOSC-ACC-WALL_POLE 369305000 SMOUV-1120-02 S-8115 BUDI-S-A32SM-MV BUDI-S-A32SM-MV 2x10GALV 0501 0502 PSE4040212P DX-111B	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 11 1 1 1 10 10	2 15 15 15 33 38 22 Manual entry Manual entry 8 30 8 15 0 2 1,025 Manual entry 1 1 Manual entry 1 1 0 0 1 1
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with doublet nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each U.G OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Pole alto to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—And choice if American Products not available Aluminum 3 pc Dole mount Fiber Storage (H-Frames)—And choice if American Products and Multillin not available TYCO B SPLICE CLOSURE (96 count lateral) TYCO B SPLICE TRAYS (195 count lateral) TYCO D SPLICE TRAYS (72) Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET For FOSC Closure) SPLICE SLEEVES - TYCO 45 MM ( Used in OFDC's) WIPES (280 wipes per box)(30 box = case) 8400 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 132 FPS PPP module, 32 SC/APC silce adapters installed BUDI S, Terminal includes 1 feeder splice tray, 132 FPS PPP module, 32 SC/APC silce adapters installed FTITING, GUY, SIGEWALK, FOILE END Sidewalk Guy Pole End Plate. Used where space is not available for standard guying, Attach with one 5/8" boil and two 1/2" lag screws. FTITING, GUY, SIGEWALK, GUY END DUCT SEAL  DOWNLEAD CLAMP - LAG SCREW KIT (3) ger H-Frame) 4" lag W/washer DUCY SEAL  DOWNLEAD CLAMP - LAG SCREW KIT (3) ger H-Frame) 4" lag W/washer DUCY SEAL  3000" POLYPULL LINE (3000 per bucket) (zip line)	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  COMMSCOPE  American Products  MULTILINK  Hubbell  COMMSCOPE  LOMMSCOPE  COMMSCOPE  LOMMSCOPE  LOMMSCOPE	760250866 EM2200-001 EM200-001 EM2001 EM2001 760248511 EM9058-001 AM-3432-FSF 065-058-10 BAFOB FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-TRA-Y-2-KIT FOSC-ACC-B-FAR-Y-2-KIT FOSC-ACC-B-FAR-Y-2-	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 15 0 2 1,025 Manual entry 1 1 Manual entry 0 1 1 60 Manual entry 13
OFDC - CL2 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Brad to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—Brad to the sone if available Aluminum 3 pc Pole mount Fiber Storage ( H-Frames)—3rd choice if American Products not available Aluminum 3 pc Pole mount Fiber Storage ( H-Frames)—3rd choice if American Products and Multilini not available TYCO B SPUCE CLOSURE (96 count lateral) TYCO B SPUCE TANT24)  TYCO D SPUCE TRAYS (72) TYCO D SPUCE TRAYS (72) Arial and strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACCET (For FOSC Gosure) SPUCE SLEEVES - TYCO 45 MM ( Used in OFDC's) WIFES (260 wipes per bod)(30 box = case) 8040 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 2 1x16 FPS PnP module, 23 SC/APC slide adapters installed BUDI S, Terminal includes 1 feeder splice tray, 1247 FPS PnP module, 23 SC/APC slide adapters installed BUDI S, Terminal includes 1 feeder splice tray, 1247 FPS PnP module, 23 SC/APC slide adapters installed SUDI S, Terminal includes 1 feeder splice tray, 1247 FPS PnP module, 23 SC/APC slide adapters installed SUDI S, Terminal includes 1 feeder splice tray, 127 FPS PnP module, 23 SC/APC slide adapters installed SUDI S, Terminal includes 1 feeder splice tray, 1287 FPS PnP module, 23 SC/APC slide adapters installed SUDI S, Terminal includes 1 feeder splice tray, 1287 FPS PnP module, 23 SC/APC slide adapters installed SUDI S, Terminal includes 1 feeder splice tray, 1287 FPS PnP module, 23 SC/APC slide adapters installed SUDI S, Terminal includes 1 feeder splice tray, 1287 FPS PnP module, 23 SC/APC slide adapters installed SUDI S, Terminal includes 1 feeder splice tray, 1287 FPS PnP module, 1287 FPS PnP module, 23 SC/APC slide adapters installed  DUT SEAL  DOWNLEAD CLAMP L - LAG SCREW KIT G standard guing, Lise with No. 0501 Pole End Fitting and 2" diameter pipe (Not included	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  TOMMSCOPE  COMMSCOPE  COMMSCOPE  COMMSCOPE  TOMMSCOPE  COMMSCOPE  COMMSCOPE  TOMMSCOPE  COMMSCOPE  TOMMSCOPE  COMMSCOPE  COMMSCOPE  TOMMSCOPE  TOMM	760250986 EM2200-001 EM200-001 EM200-001 EM8100410 760248511 EM958-001 AM-3432-FSF 065-058-10 BAF0B FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-8TRAY-24 FOSC-450-B6-6-NT-0-D6V FOSC-ACC-B-TRAY-72-KIT FOSC-ACC-B-7EAN-72-KIT FOSC-ACC-S-8-RITAL-CLMP FOSC-ACC-WALL_POLE 369305000 SMOUV-1120-02 S-8115 BUDI-S-A32SM-MV BUDI-S-A32SM-MV 2x10GALV 0501 0502 PSE4040212P DX-111B	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry 8 30 8 15 0 2 1,025 Manual entry 1 1 Manual entry 1 1 1 60 Manual entry 13 14 16,120
OFDC - C12 Strand Mount Rit B BOND CLAMP Single stud with doublen up the prestud. For 0.5"-0.8" cable.  OFDC Armor Grounding Rit ( One for each U.G OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)-Darid Atto this one if available POLE MOUNT FIBER STORAGE ( H-Frames)-Darid Atto this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-3rd choice if American Products and Aultilinik not available TYCO B SPUCE CLOSURE (96 count lateral) TYCO B SPUCE TRAY[24] TYCO D - SPUCE TRAY[24] TYCO D - SPUCE TRAY[24] TYCO D SPUCE TRAY[24] TYCO D SPUCE TRAY[27] Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (For FOSC Closure) SPUCE SLEEVES - TYCO 60 MM SPUCE SLEEVES - TYCO 60 MM SPUCE SLEEVES - TYCO 60 MM ( Used in OFDC's) WIPPES (280 wipes per box)(30 Dos = case) 8400 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 1x32 FPS PPP module, 32 SC/APC slice adapters installed BUDI S, Terminal includes 1 feeder splice tray, 1x32 FPS PPP module, 32 SC/APC slice adapters installed BUDI S, Terminal includes 1 feeder splice tray, 1x32 FPS PPP module, 32 SC/APC slice adapters installed SUDI S, Selmal S, Sudia Adapters and S, Storage A, Sto	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  Hubbell  COMMSCOPE  Hubbell  Hubbell  Hubbell  BLACKBURN  DOTT  Blue Diamond	760250866 EM2200-001 EM200-001 EM2001 EM2001 760248511 EM958-001 AM-3432-F5F 065-058-10 BAF0B BAF0B FOSC-450-B6-4-NT-O-TOV FOSC-ACC-B-BTRAY 24 FOSC-450-B6-4-NT-O-D6V FOSC-ACC-B-BTRAY 24 FOSC-ACC-B-BTRAY 24 FOSC-ACC-B-BTRAY 24 FOSC-ACC-B-BTRAY 24 FOSC-ACC-ACL, HOPE S69305000 SMOUV-1120-02 S-8115 BUDI-5A1325M-MV BUDI-5A1325M-MV UDI-5A1325M-MV UDI-5A1325M-MV 0501 0502 PSE4040212P DX-1 1LB DW93000 BDI4130R	E E E E E E E E E E E E E E E E E E E	1 1 10 10 10 10 10 10 10 10 10 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 15 0 2 1,025 Manual entry 1 1 Manual entry 0 1 1 60 Manual entry 13
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with doublen up to prestud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each U.G OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)-Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)-Darid choice if American Products and Autilities not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)-And choice if American Products and Multilities not available TYCO 8 SPLICE CLOSURE (96 count lateral) TYCO 9 SPLICE TRAY(24) TYCO 9 SPLICE TRAY(24) TYCO D SPLICE TRAY(25) Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (FOF FOSC Closure) SPLICE SLEEVES - TYCO 60 MM (Used in OFDC's) WIPES (280 wipes per box)(30 Dos = case) 8400 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 1:142 FPS PPP module, 23 SC/APC slide adapters installed BUDI S, Terminal includes 1 feeder splice tray, 1:142 FPS PPP module, 23 SC/APC slide adapters installed BUDI S, Terminal includes 1 feeder splice tray, 1:142 FPS PPP module, 23 SC/APC slide adapters installed SIdewalk Guy Pole End Plate. Used where space is not available for standard guying, Attach with one 5/8" bolt and two 1/2" lag screws. FITTING, GUY, SliceWAIL, GOUE END SIdewalk Guy Pole End Plate. Used where space is not available for standard guying, Attach with one 5/8" bolt and two 1/2" lag screws. FITTING, GUY, SloceWAIL, GOUE END SIDEWAIL SLICE. SOUR FLOWER Span Span Span Span Span Span Span Span	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMDUIT  Hubbell  Hubbell  BLACKBURN  DOTT  Blue Diamond  MAXCELL  AP International  Dynamic Fastener	760250866 EM200-001 EM200-001 EM2001 EM2001 FM30010 760248511 EM958-001 AM-3432-F5F 065-058-10 BAF0B BAF0B BAF0B FOSCA50-B6-8-N-0-TOV FOSCACC-B-8TRAY 24 FOSC-4CD-D-F8-N-0-D6V FOSC-ACC-D-T8A-7-2-KIT FOSCACC-WALL POLE 369305000 SMOUV-1120-02 S-8115 BUID-5A325A-MV 2x106ALV 0501 0502 PSE4040212P DX-1 ILB DW93000 B04130R MXE64283815300 DM333 SN14X1.5*	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry  8 30 8 15 0 2 1,025 Manual entry 1 Manual entry 1 1 Manual entry 1 1 1 60 Manual entry 13 16,120 Manual entry 368 1,000
OFDC - CL2 Strand Mount Kit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—2nd choice if American Products not available Aluminum 3 pr Dole mount Fiber Storage (H-Frames)—3nd choice if American Products and Multilink not available Aluminum 3 pr Dole mount Fiber Storage (H-Frames)—3nd choice if American Products and Multilink not available TYCD 8 SPUCE CLOSURE (96 count lateral) TYCD 0 SPUCE TRAYS (12) TYCD 0 - SPUCE TRAYS (12) TYCD 0 - SPUCE TRAYS (12) TYCD 0 - SPUCE TRAYS (12) Advail strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRANCET (For FOSC Closure) SPUCE SEEVES - TYCO 65 MM ( Used in OFDC's) WIFES (280 wipes per bool)(30 box = case) 800 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 2 1415 FFS PP module, 32 SC/APC side dapters installed BUDI S, Terminal includes 1 feeder splice tray, 2 1415 FFS PP module, 32 SC/APC side dapters installed BUDI S, Terminal includes 1 feeder splice tray, 2 1415 FFS PP module, 32 SC/APC side dapters installed SUDI S, Terminal includes 1 feeder splice tray, 1215 FFS PP module, 32 SC/APC side dapters installed SUDI S, Terminal includes 1 feeder splice tray, 1215 FFS PP module, 32 SC/APC side adapters installed SUDI S, Terminal includes 1 feeder splice tray, 1216 FFS PP module, 32 SC/APC side adapters installed SUDI S, Terminal includes 1 feeder splice tray, 1216 FFS PP module, 32 SC/APC side adapters installed SUDI S, Terminal includes 1 feeder splice tray, 2 100 FFS PP module, 32 SC/APC side adapters installed SUDI S, Terminal includes 1 feeder splice tray, 2 100 FFS PP module, 32 SC/APC side adapters installed SUDI S, Terminal includes 1 feeder splice tray, 2 100 FFS PP module, 32 SC/APC side adapters installed SUDI S, Terminal includes 1 feeder splice tray, 2 100 FFS PP module, 32 SC/APC side adapters installed SUDI S	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  LIMBERLY-CLARK  COMMSCOPE	760250866 EM2200-001 EM200-001 EM200-001 EM800010 760248511 EM0958-001 AM-3432-F5F 065-058-10 BAF0B FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-B6-4-NT-0-D6V FOSC-ACC-B-8TRAY 24	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 11 11 et 1 1 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 15 0 2 1,025 Manual entry 1 Manual entry 1 Manual entry 1 Manual entry 1 1 Manual entry 1 1 1 60 Manual entry 13 16,120 Manual entry 368 1,000 450
OFDC - C12 Strand Mount Kit B BOND CLAMP Single stud with doublet nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames) - Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames) - Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames) - Default to this one if available Aluminum 3 pc Pole mount Fiber Storage (H-Frames) - Parid choice if American Products and Autilian not available TYCO B SPLICE CLOSURE (96 count lateral) TYCO B SPLICE TRAY(28) TYCO D S PLICE TRAY(28) TYCO D SPLICE TRAY(28) TYCO D SPLICE TRAY(28)  Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (For FOSC Closure) SPLICE SLEEVES - TYCO 60 MM SPLICE SLEEVES - TYCO 60 MM SPLICE SLEEVES - TYCO 60 MM (Used in OFDC's) WIPES (280 wipes per box)(30 box = case) 8400 wipes BUDI S, Splitter Terminal Includes 1 feeder splice tray, 13/2 FPS PPP module, 32 SC/APC slice adapters installed BUDI S, Terminal includes 1 feeder splice tray, 13/2 FPS PPP module, 32 SC/APC slice adapters installed BUDI S, Terminal includes 1 feeder splice tray, 13/2 FPS PPP module, 32 SC/APC slice adapters installed SIDE SLICE SLEEVES - TYCO 45 MM (Used in OFDC's) Sidewalk Guy Pole End Plate. Used where space is not available for standard guying, Attach with one 5/8" bolt and two 1/2" lag screws. FITTING, GUY, SiDEWALK, GUI END Sidewalk Guy Pole End Plate. Used where space is not available for standard guying, Use with No. 0501 Pole End Fitting and 2" diameter pipe (Not included). Hat dig palanized. RUS Listed.  DOWNLEAD CLAMP L - LAG SCREW KIT (3 per H-Frame) 4" lag W/washer  DUCT SEAL  3000" POLYPULL LINE (3000 per bucket) (zip line) Conduit, HDPE, 4.00" SDR 11, SmoothWall, ORG, 10000 pull tape, 8000" 3 N. N. 3 CELL BLUE, 5300 FT. 9999 FT. FIBER CABLE OH MARKER CREW GROUPS AND FT. SERVED MOUNTS COAT HWH #I	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMDUIT  Hubbell  Hubbell  BLACKBURN  DOTT  Blue Diamond  MAXCELL  AP International  Dynamic Fastener	760250866 EM200-001 EM200-001 EM2001 EM2001 FM30010 760248511 EM958-001 AM-3432-F5F 065-058-10 BAF0B BAF0B BAF0B FOSCA50-B6-8-N-0-TOV FOSCACC-B-8TRAY 24 FOSC-4CD-D-F8-N-0-D6V FOSC-ACC-D-T8A-7-2-KIT FOSCACC-WALL POLE 369305000 SMOUV-1120-02 S-8115 BUID-5A325A-MV 2x106ALV 0501 0502 PSE4040212P DX-1 ILB DW93000 B04130R MXE64283815300 DM333 SN14X1.5*	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry  8 30 8 15 0 2 1,025 Manual entry 1 Manual entry 1 1 Manual entry 1 1 1 60 Manual entry 13 16,120 Manual entry 368 1,000
OFDC - C12 Strand Mount Rit B BOND CLAMP Single stud with doublen up to PISTUL. For 0.5"-0.8" cable.  OFDC Armor Grounding NIT ( One for each U.G OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Default to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—The Aborice if American Products not available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—The double if American Products and Autilinik not available TYCO B SPUCE CLOSURE (184 count lateral) TYCO D SPUCE SUBJECT (1874)(24) TYCO D SPUCE LOSURE (144 count lateral) TYCO D SPUCE TRAYS (72) Aerial strand mounting clamp and accessories (FOSC) TYCO POLICE MOUNT REACHEST (FOF FOSC Closure) SPUCE SLEEVES - TYCO 60 MM SPLICE SLEEVES - TYCO 60 MM SPLIC	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  Hubbell  COMMSCOPE  COMMSC	760250986 EM2200-001 EM200-001 EM2001 EM2001  EM8100410 760248511 EM958-001 AM-3432-FSF 065-058-10 BAF0B FOS-450-B6-4-NT-0-TOV FOSC-ACC-8-8-TRAV-24 FOSC-450-B6-6-NT-0-D6V FOSC-ACC-9-TRAV-72-KIT FOSC-ACC-9-TRAV-72-KIT SAG0450-05-10-10-10-10-10-10-10-10-10-10-10-10-10-	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 8 15 0 2 1,025 Manual entry 1 Manual entry 1 Manual entry 1 Manual entry 1 Manual entry 0 0 1 1 1 1 60 Manual entry 13 16,120 Manual entry 368 1,000 450 1,800
OFDC - C12 Strand Mount Rit B BOND CLAMP Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Nit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( H-Frames)—Chefault to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—Chefault to this one if available POLE MOUNT FIBER STORAGE ( H-Frames)—And choice if American Products and available Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—And choice if American Products and Multillin not available TYCO 8 SPLICE CLOSURE (96 count lateral) TYCO 9 SPLICE TRAY[24]  POLE MOUNT FIBER STORAGE (E H-Frames)—And choice if American Products and Multillin not available TYCO 9 SPLICE TRAY[27]  Aerial strand mounting clamp and accessories (FOSC) TYCO PSILECE LOSURE (144 count lateral) TYCO D SPLICE TRAY[27]  Aerial strand mounting clamp and accessories (FOSC) TYCO POLE MOUNT BRACKET (For FOSC Closure) SPLICE SLEEVES - TYCO 60 MM SPLICE SLEEVES - TYCO 60	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMM	760250866 EM200-001 EM200-001 EM2001 EM2001 FM30010 760248511 EM958-001 AM-3432-F5F 065-058-10 BAF0B BAF0B BAF0B FOSC-450-B6-81T-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-D6-8-17-0-D6V FOSC-ACC-B-8TRAY 24 FOSC-ACC-WALL POLE 369305000 SMOUV-1120-02 S-8115 BUDI-5A325A-MV U2:10GALV 0501 0502 PSE4040212P DX-11LB DW93000 BD14130R MXE64283815300 DN33 SN14X1.5* PLTIM-M6 BT3M-CO BT3I-CO	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry  8 30 8 15 0 2 1,025 Manual entry  Manual entry  1 Manual entry  1 Manual entry  1 Manual entry  Manual entry  30 11 11 16 60 Manual entry 13 16,120 Manual entry 13 16,120 Manual entry 18 18 16,120 Manual entry 18 18 16,180 1,000 1,800 1,800 1
OFDC - C12 Strand Mount Rit  B BOND C.AMP  Single stud with doublen up ter stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each U.S OFDC Splice Location) Box of 25  Ground wire for OFDC  POLE MOUNT FIBER STORAGE ( H-Frames)—Default to this one if available  POLE MOUNT FIBER STORAGE ( H-Frames)—To double it American Products not available  Aluminum 3 pc Pole mount FIBER STORAGE ( H-Frames)—To double it American Products and Multilink not available  Aluminum 3 pc Pole mount FIBER STORAGE ( H-Frames)—To double if American Products and Multilink not available  TYCD B SPUCE CLOSURE (184 count lateral)  TYCD D SPUCE TRAYS (72)  TYCD D SPUCE TRAYS (72)  Arial strand mounting champ and accessories (FOSC)  TYCO POLE MOUNT BRANCET ( For FOSC Closure)  SPUCE SLEEVES - TYCO 60 MM  SPUCE SLEEVES - TYCO 45 MM ( Used in OFDC's)  WIPES (280 Wipes per book) 30 box = case) 3400 wipes  BUDI S, Splitter Terminal includes 1 feeder splice tray, 2 14.6 FPS PP module, 33 SC/APC side adapters installed  BUDI S, Terminal includes 1 feeder splice tray, 2 14.6 FPS PP module, 33 SC/APC side adapters installed  BUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 33 SC/APC side adapters installed  SUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 33 SC/APC side adapters installed  SUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 33 SC/APC side adapters installed  SUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 33 SC/APC side adapters installed  SUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 33 SC/APC side adapters installed  SUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 33 SC/APC side adapters installed  SUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 33 SC/APC side adapters installed  SUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 13 SC/APC side adapters installed  SUDI S, Terminal includes 1 feeder splice tray, 12.0 FPS PPP module, 13 SC/APC side adapters install	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMM	760250866 EM2200-001 EM200-001 EM2001 FM8100410 760248511 EM0958-001 AM-3432-F5F 065-058-10 BAF0B FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-B6-4-NT-0-D6V FOSC-ACC-B-8TRAY 24 FOSC-ACC-MALL_POLE 369305000 SMOUV-1120-02 S-8115 BUDI-SA325M-MV 20105AU 20105	E E E E E E E E E E E E E E E E E E E	1 100 100 1000 1000 1000 1000 1000 100	2 15 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 8 15 0 2 1,025 Manual entry 1 Manual entry 0 0 1 1 1 1 60 Manual entry 13 16,120 Manual entry 13 16,100 Manual entry 180 180 1,800 1,800 1,800 1,800 1
OFDC - C12 Strand Mount Rit  B BOND C.AMP  Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each U.G OFDC Splice Location) Box of 25  Ground wire for OFDC  POLE MOUNT FIBER STORAGE ( H-Frames) - Default to this one if available  PROLE MOUNT FIBER STORAGE ( H-Frames) - Advise if American Products not available  PROLE MOUNT FIBER STORAGE ( H-Frames) - Advise if American Products and Multillink not available  Aluminum 3 pc Pole mount Fiber Storage (H-Frames) - 3rd choice if American Products and Multillink not available  TYCD 8 SPUEC CLOSURE (96 count lateral)  TYCD 8 SPUEC TERAYS (12)  TYCD 0 SPUEC TRAYS (12)  Arial strand mounting clamp and accessories (FOSC)  TYCO POLE MOUNT BRANCET (For FOSC Goure)  SPUEC SLEEVES - TYCO 65 MM ( Used in OFDC's)  WIPES (280 wipes per bool)(30 box = case) 800 wipes  BUDI S, Splitter Terminal includes 1 Feeder splice tray, 2 1x6 FPS PPD module, 23 SC/APC slide adapters installed  SUDI S, Terminal includes 1 Feeder splice tray, 2 1x6 FPS PPD module, 23 SC/APC slide adapters installed  2° x 10 Galv Conduit  FITTING, GUY, SIDEWALK, POLE END  Sidewalk Guy Pole End Plate. Used where space is not available for standard guying. Match with one 5/8" bolt and two 1/2" lag screws.  FITTING, GUY, SIDEWALK, POLE END  Sidewalk Guy Pole End Plate. Used where space is not available for standard guying. Use with No. 0501 Pole End Fitting and 2" diameter pipe (Not included), Hot dip galvanized. RUS Listed.  DOWNLEAD CLAMP L. LAG SCREW RUT (3 per H-Frame) 4" lag W/washer  DUCT SEAL  3000 POLYPULL LINE (3000 PP bucket) (pip line)  Conduit, HDPE, 4.00" SCR 11, Smoonchiwali, ORG, 10000 pull tape,8000"  3 IN 3 CELL BULE, 5300 FT, 9999 FT.  FIBER CABLE OH MARKER CUSTOMAZABLE (Change Part number) Mounting to steel poles  250" X 1 1/2" " selfform in enderhood W/O/W DYNA-COAT HWH #1  4" BLUE TY WARP  7" BLACK TY WARP  99% ISOPROPYL ALCOHOL GALLON  16 SOL HF-CCS / PE30/ 1118 85/Hgb-Flex / Green 500 Reel (Tracer Wire)	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  COMMSCOPE  American products  MULTILINK  Hubbell  COMMSCOPE  COMMSCOPE	760250866 EM2200-001 EM200-001 EM2001 FM820010 760248511 EM0958-001 AM-3432-F5F 065-058-10 BAF0B FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-ACC-B-8TRAY 24 FOSC-ACC-MALL POLE 36930500 SMOUV-1120-02 S-8115 BUDI-SA32SM-MV 2010FALV 0501 0502 PSE4040212P DX-11LB DWP3000 BD04130R MXE64283815300 DN33 SN14X1.5* PLT1M-M6 BT2M-CO BT3I-CO 44029 744160532	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 15 0 2 1,025 Manual entry 1 Manual entry 1 Manual entry 1 Manual entry 36 60 Manual entry 1 1 60 Manual entry 1 1 1 60 Manual entry 1 1 1 60 Manual entry 1 1 1 1 60 Manual entry 1 1 1 1 60 Manual entry 1 1 1 1 1 60 Manual entry 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
OFDC - C12 Strand Mount Rit  B BOND C.AMP Single stud with doublen up ter stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Kit ( One for each UG OFDC Splice Location) Box of 25 Ground wire for OFDC POLE MOUNT FIBER STORAGE ( FF-Fames) - Default to this one if available POLE MOUNT FIBER STORAGE ( FF-Fames) - Default to this one if available POLE MOUNT FIBER STORAGE ( FF-Fames) - Advise if American Products not available Aluminum 3 pc Pole mount Fiber Storage ( FF-Fames) - 3rd choice if American Products and Multillink not available TYCD 8 SPUEC ELOSURE (96 count lateral) TYCD 8 SPUEC ELOSURE (144 count lateral) TYCD 0 SPUEC TRAYS (72) TYCO D SPUEC TRAYS (72) Arial strand mounting clamps and accessories (FOSC) TYCO POLE MOUNT BRACKET ( For FOSC Closure) SPUEC SLEEVES - TYCO SAM ( Used in OFDC's) WIPPS (280 wipes per box)(30 box = case) 8400 wipes BUDI S, Splitter Terminal includes 1 feeder splice tray, 2 1x6 FPS PP module, 32 SC/APC silice adapters installed  2" x 10" Galv Conduit FITTING, GUY, SIDEWALK, FOLE END Sidewalk Guy Pole End Plate. Used where space is not available for strandard guying. Attach with one 5/8" bolt and two 1/2" lag screws. FITTING, GUY, SIDEWALK, FOLE END Sidewalk Guy Pole End Plate. Used where space is not available for strandard guying. Use with No. 0501 Pole End Fitting and 2" diameter pipe (Not included). Hot Gip galvanizede. RUS Listed.  DOWNLEAD CLAMP - LaG SCREW RUT ( Speri-Harmer) 4" lag W/washer DUCT SEAL 3000" POLYPULL LINE ( 3000 EP bucket) ( ipi line) Conduit, HOPE, 4.00" SSDR 11, Smooncoltwall, GOR, 10000 pull tape,8000" 3 In. 3 CELL BULE, S300 FT, 999 9FT. FIBER CABLE OH MARKER CUSTOMAZABLE ( Change Part number) Mounting to steel poles - 250" X 1 1/2" selffoill Fenderhead W/O/W DYNA-COAT HWH #1 4" BULK TY WRAP 7" BLACK TY WRAP 99% ISOPROPIL ALCOHOL GALLON Aluminum Cable Damper. To be used in timor of crosswind aeras to prevent movement and oscillation. 2 per Span. Ant Packets ( Rainbow Fire And Ind Insect Killer 4oz package)	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  Hubbell  COMMSCOPE  COMMSC	760250866 EM200-001 EM200-001 EM200-001 EM2001 FM82001 760248511 EM958-001 AM-3432-F5F 065-058-10 BAF0B BAF0B FOSC-450-B6-4-NT-O-TOV FOSC-45C-B6-4-NT-O-TOV FOSC-ACC-B-BTRAY 24 FOSC-45D-B6-4-NT-O-DOV FOSC-ACC-B-TRAY 24 FOSC-ACC-B-TRAY 24 FOSC-ACC-B-TRAY 24 FOSC-ACC-B-TRAY 24 FOSC-ACC-B-TRAY 24 FOSC-ACC-B-TRAY 24 FOSC-ACC-MALL POLE 369395000 SMOUV-1120-02 S-8115 BUDI-SAJ325M-MV BUDI-SAJ325M-MV 2410GALV 0501 0502 PSE4040212P DX-1 ILB DW93000 BD4130R MXE64283815300 DN33 SN14X1.5* PITIM-M6 BT2M-CO BT3I-CO 44029 744160532 9081	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 15 0 2 1,025 Manual entry 1 1 1 60 Manual entry 1 1 1 60 Manual entry 1 1 1 2 0 1 1 1 2 0 Manual entry 1 1 1 1 1 2 0 Manual entry 1 1 1 1 1 1 2 0 Manual entry 1 1 1 1 1 1 1 1 2 0 Manual entry 1 368 1,000 1 450 1,800 1 1,800 1 1 2,000 manual entry—only used in hig wind areas and on long span (if used on power) Manual entry (if used on power) Manual entry Manual entry
OFDC - C12 Strand Mount Rit  B BOND CLAMP  Single stud with double nut per stud. For 0.5"-0.8" cable.  OFDC Armor Grounding Rit ( One for each U.G OFDC Splice Location) Box of 25  Ground wite for OFDC  POLE MOUNT FIBER STORAGE ( H-Frames)—Brad to this one if available  POLE MOUNT FIBER STORAGE ( H-Frames)—Brad to this one if available  POLE MOUNT FIBER STORAGE ( H-Frames)—And choice if American Products and available  Aluminum 3 pc Pole mount Fiber Storage (H-Frames)—And choice if American Products and Multillin not available  YYCD B SPUCE CLOSURE (96 count lateral)  TYCD D SPUCE TRAYS (27)  TYCO D SPUCE TRAYS (27)  Aerial strand mounting clamp and accessories (FOSC)  TYCO POSPUCE MOUNT BRACKET (For FOSC Closure)  SPUCE SLEEVES - TYCO 45 MM ( Used in OFDC's)  WIPES (200 wipes per bod) So av case) BADD wipes  BUDI S, Splitter Terminal includes 1 feeder splice tray, 2 1x16 FPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 132 PPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 132 PPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 12 NG FPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 12 NG FPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 12 NG FPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 132 PPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 132 PPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 132 PPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 132 PPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 132 PPS PNP module, 32 SC/APC slide adapters installed  BUDIS, Terminal includes 1 feeder splice tray, 132 PPS PNP module, 32 SC/A	COMMSCOPE  COMMSCOPE  Hubbell  Hubbell  COMMSCOPE  COMMSCOPE  COMMSCOPE  American products  MULTILINK  Hubbell  COMMSCOPE  COMMSCOPE	760250866 EM2200-001 EM200-1 EM2001 FM2001 760248511 EM958-001 AM-3432-F5F 065-058-10 BAF0B FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-450-B6-4-NT-0-TOV FOSC-ACC-B-8TRAY 24 FOSC-ACC-B-8TRAY 24 FOSC-ACC-B-8TRAY 24 FOSC-ACC-D-RAY-72-KIT FOSC-ACC-D-RAY-72-KIT FOSC-ACC-MALL POLE 369395000 SMOUV-1120-02 S-8115 BUDI-SA32SA-MV 2210GALV 0501 0502 PSE4040212P DX-11LB DWP3000 BDH330R MXE64283815300 DN33 SN14XL5-5 PLTIM-M6 BT2M-CO BT3I-CO 44029 744160532	E E E E E E E E E E E E E E E E E E E	1 10 10 10 10 10 10 10 10 10 10 10 10 10	2 15 15 15 33 38 22 Manual entry Manual entry 8 8 30 8 15 0 2 1,025 Manual entry 1 1 Manual entry 1 1 1 60 Manual entry 1 1 2 1 60 Manual entry 1 1 2 1 2 1 60 Manual entry 1 1 2 1 2 1 60 Manual entry 1 1 2 1 2 1 60 Manual entry 1 1 2 1 2 1 2 0 Manual entry 1 3 1 1 2 1 2 0 0 4 3 0 1 8 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Unit Description	Preferred Vendor	Part Number	Client Part #	UOM	Package Qty	Est Build Qty
BRACKET, BANDING, GENERAL PURPOSE Bracket with standard 5/8" x 2" bolt	Hubbell	CHDBB1511H		EA	1	1
U-guard and Conduit Straps 2"(Concrete Poles)	Maclean	MBST-2		EA	24	1
Scru seal Kit. 25 Scru seal Racks, 25 Housings, Valu strap Band 3/8x.015x100'	Band-it	M21099		EA	25	0
CONDUIT PVC 4 INCH X 20 FT	Various	514020		EA	1	3,250
Conduit, HDPE 4.00" SDR 11, Smoothwall, Org,1000# Pull tape (Comes on 4" reels of 800')	Various	BDI413OR		FT	800	800
1/2"SDR11 Orange, 1250# pull Tape 5,000' Reels	Dura-Line	2031880810		FT	5000	Manual entry
1" SDR11 Orange, 1250# pull Tape, 5000' Reels	Dura-Line	10004433		FT	5000	Manual entry
12 CT NON-ARMORED FIBER D-012-LN-8W-F12NS	Fiber	8107357/DB		FT	15500	Manual entry
24 CT NON-ARMORED FIBER D-024-LN-8W-F12NS	Fiber	8107358/DB		FT	15500	Manual entry
48 CT NON-ARMORED FIBER D-048-LN-8W-F12NS	Fiber	8107360/DB		FT	15500	Manual entry
96 CT NON-ARMORED FIBER D-096-LN-8W-F12NS	Fiber	8107363/DB		FT	15500	Manual entry
144 Ct NON-ARMORED FIBER D-144-LN-8W-F12NS	Fiber	8107365/DB		FT	15500	Manual entry
SELF-SUPPORTING NON-ARMORED FIGURE-8 OUTDOOR DROP CABLE	CommScope	COMMSCOPE M-004-MN-8W-F04NS/109		FT	2000	89,300
Self-Supporting All-Dielectric Outdoor Drop Cable 4-CT FLAT DROP 2000' PUT UP	CommScope	COMMSCOPE 0-004-MN-8W-F04NS/109		FT	2000	Manual entry
2F standard Flat, toneable.	CommScope	8108198/DB O-002-DF-HY- F02NS/8W002/1X24AWG		FT	2000	194,000
2 Count drop with locate wire 900 Micron	CommScope	810009422/DB CommScope O-002-DF-HY- F02NS 8G002/1X24AWG/IC29		FT	2000	Manual entry
2 Ct / 250 Micron Non-Tonable Flat Drop	CommScope	8107934/DB, O-002-DF-8W-F02NS		FT	5000	Manual entry
2 Ct Flat Drop, 250 Micron, NON-Tonable 2000 ft reels 2 count flat drop (Comes in 2000 ft spools)	Sterlite Corning	FD-0004F-SN-01T-G-P1-99 002EB1-14101A20-2000FT		FT FT	2000 2000	Manual entry Manual entry
1/2 PVC SCHEDULE 40 10' Sticks	Various	PVC SCH40.5		EA	10	Manual entry  Manual entry
Schedule 40 Elbow, Size 1/2 Inch, Bend Radius Standard, Bend Angle 90 Degrees, Material PVC	Various	PVC UA9AD		EA	50	600
CP050 1/2" SCH 40 COUPLING	Various	PVC E940D		EA	150	1,350
CLMPOSO 1/2" PVC CONDUIT CLAMP 3/4" coupler	Various Various	PVC E977DC CPL34PVF		EA EA	100 25	900
3/4" clamp	Various	5133737		EA	25	125
Charles Riser, Cane Stright	Charles	12-119-5		EA	1	420
Charles Riser, Cane Offset	Charles	12-119-2		EA	1	420
Conduit, HDPE, .75 SDR 11, SmooothWall, ORG,1000# pull tape,5000'  Blue Diamond Micro Duct 8/10mm Outdoor	Various Various	P075SDR11-ORANGE (Blue Diamond) 2021855510 (Blue Diamond)		FT	5000 2000	5,000 2,000
CRIMPLOK(TM) + CONN SC/APC SM 900UM WITH PS TOOL	3M	3M 8700-PS/APC		EA	0	0
PIGTAIL, SM SIMPLEX, 3MM SCAPC TO BARE FIBER 24IN	TVC	TVC AV1SCAPC1324Y		EA	1	1,200
Surelight® Field Installable Connector - SC/APC, Singlemode, 250um/900um	Surelight	066-025-10		EA	2	1,200
Corning NPC+ 8830APCFSC (Mechanical drop Connector) WIREVISE - Auto Deadend for Messenger Figure 8 Drop	Corning MacLean	Corning NPC+ 8830APCFSC MPS 5058		EA EA	100	400
60MR SPLICE SLEEVE	CommScope	TYCO 369305000		EA	1000	1,000
45MM SPLICE SLEEVE	CommScope	Commscope SMOUV-1120-02		EA	1000	3,000
FIS FUSION PROTECTION SLEEVE 40MM	FIS	FIBINST F1100240C-50		EA	50 50	1,200
Splicing Drops ( Drop Repair)  DROP WIRE CLAMP FIBER CABLE (Wedge Clamp for flat drop)	CommScope Maclean Senior Industries	FDSC-GATOR-12F-T SENIOR SI-0972		FT EA	100	50 500
HOOK DRIVE ( J Hook)	MacLean	MPS J3318		EA	1	400
O SPAN CLAMP CROSSES TO 4075 ALLIED ALSO *	Belden	BELDEN 2700860		EA	100	300
3-3/4" P HOUSE HOOK	Allied Bolt	ALLIED BOLT 921		EA	200	600
BRACKET, SERVICE DEADEND (Power Mast Attachment)  1" X 10' FLANGED RISER GUARD	Hubbell Hubbell	HPS C2060169 PSC2030546		EA EA	1	125 90
10 X 1-1/2 Hex Washer Head Slotted/Phillips Sheet Metal Screws	Dottie	DOTTIE HWSMS10112		BOX	1600	1
10 X 1 Hex Washer Head Slotted/Phillips Sheet Metal Screws	Dottie	DOTTIE HWSMS101		BOX	3200	1
10 x 2" Hex Washer Head Slotted/Phillips Sheet Metal Screws 16 SOL HF- CCS PE30 111#BS High Flex Green 2500' Reel	Dottie	DOTTIE HWSMS102		BOX	1600 2500	1
POST, MOBILE HOME, 36 IN	William & Frick Emerson	744160547-CX EMERSON MHP36		Reel EA	10	10
Tapered Anchors with Collar ( Red )	Dottie	DOTTIE 22 8-10-12		BOX	3200	1
3/16" X 1-3/4" Tapcon Hex head Masonry Fastener W/Drill Bit	TAPCON	3141407		BOX	1600	1
Cable Tie, Length of 139.7mm (5.5 Inches), Width of 3.56mm (0.14 Inches),	T&B	TB TY524MX		BAG	100	60
Cable Tie, Length of 185.67mm (7.31 Inches), Width of 4.67mm (0.184 Inches),  E DROP WIRE CLAMP 1PR ( Attach drop to pole)	T&B Belden	TB TY25MX BELDEN 23-80361		BAG BOX	100 2000	30
OWB-S-SO-S24-NN-W (NIDS)	CommScope	Commscope NID		EA	2000	600
NID - Coyote	PLP	STP-GG-3-1-2-1		EA	1	1
MDU , Box Splice Only	CommScope	BUDI-FS-SPNNNN-US00		EA	1	Manual entry
Skirt for MDU Box	CommScope	BUDI-S-SKRT-24		EA	2	Manual entry
1 port SC-APC SFU NID (two SC adapter frames; one SC-APC Adapter)	PPC	SFIT-FK01AJN-004		EA	1	Manual entry
PRIMEX WALL BOX - NID 125-1790(P700 Hex W/FTS,SC/APC	PRIMEX	125-1790		EA	1	Manual entry

# **Exhibit H - Town of Clifton Resident Letters**

March 14, 2022

I am writing in support of the grant application by Pierce Pepin Cooperative Services (Swift Current) for additional funding to implement expanded high-speed internet accessibility in rural Pierce County.

I am in a unique position to comment. As a long-time River Falls School Board member, I have seen our schools embrace technology to enhance learning for all students. If done right, technology is the new "leveler" by providing universal opportunities to help students and families of all socio/geographic/economic circumstances take advantage of the educational opportunities available to them. The challenge for them, however, is to have access to dependable high-speed internet. We provide devices (laptop computers) for all students to use while at school or to take home. They can even use them over the summer, but their value is diminished if they have weak, undependable, or nonexistent internet access outside of the school day.

The pandemic has demonstrated just how important all of that is. Our school district immediately provided "hot spots" at all our schools for kids who did not have adequate internet service — accessible from outside the buildings in the parking lots, etc. — for those who did not have adequate service. The public library did the same. Some kids & families were even using their church to get adequate access. It still was not enough. Rural parents in our district were often struggling with working from home and at the same time trying to support/facilitate their kids learning on low quality internet connections — if it was available at all (often dependent on the weather). Our teachers who live in rural areas needed to teach from home and struggled with the same issues.

Our district has now established an E-charter school to serve the needs of families in this region who for whatever reason cannot access education in an in-person mode. The pandemic may be waning, but the important educational need for high-speed universal internet access in rural areas is only increasing.

If our state is to continue to prosper, it will need high quality internet access for ALL its citizens – just as we do for electricity. We can't leave rural areas at the mercy of a hodgepodge of independent vendors that are not dependable. Because this is about our kids, it is literally about the future of Wisconsin – especially rural Wisconsin.

The time is now, and Swift Current has the knowhow and relationships in this community to get this done. They have a track record of dependability. We are fortunate that they are willing to take this on.

Respectfully,

Alan J. Tuchtenhagen

Clifton Township N8554 1205<sup>th</sup> Street River Falls, WI 54044

alantuchtenhagen@gmail.com

3/3/2022

Wisconsin Public Service Commission 4822 Madison Yards Way North Tower – 6th Floor Madison, WI 53705

Re: Pierce Pepin Cooperative Services Grant Application – Town of Clifton

To Whom It May Concern:

I am writing you in support of the Pierce Pepin Cooperative Services Grant Application for the Town of Clifton project being submitted under the 2022 WI PSC Broadband Grant program. Our area desperately needs reliable high-speed internet service.

Pierce Pepin Cooperative Services has worked with closely with the Town of Clifton to ensure every resident has access to their fiber optic network. The proposed grant will bring service to the remaining 650 homes that have been left behind by other providers. The Town of Clifton has supported this by contributing \$220,000 to ensure this project gets completed.

We currently have internet through Northfield WiFi. This is extremely unreliable. We currently pay for the highest level of speed, which they state is over 100 Mps. However, consistently in the evening - especially on the weekends, the speed drops significantly. At times, the download speed drops to 10-15 Mbps. This is ridiculously slow! Northfield has nobody working on the weekends. I take screenshots and send it to them. They look at the system on Monday morning and see no issues. Well of course not because it is on the weekend evenings that there is the biggest problem - when they have nobody working and most of the time nobody actively monitoring emails. Their system has been completely failing more often. I am a physician and work from home. This is significantly hindering my ability to take care of patients.

Additionally, we have an active livestock farm. We have internet in the barn that has very shotty reception. This poor internet makes it difficult for us to do our business and run the cameras necessary. We strongly support bringing fiber into the area!!

We cordially ask you to approve the application that is being submitted by Pierce Pepin Cooperative Services and fund this project.

Sincerely,

Dr. Kerri Harting N7836 County Road F River Falls, WI 54022 Kerri.harting@gmail.com 314-707-4889 Michael & Deborah Manteufel W12455 851<sup>st</sup>. Ave. River Falls, WI 54022

March 2, 2022

Wisconsin Madison Yards Way 4822 North Tower – 6<sup>th</sup>. Floor Madison, WI 53705

Re: Pierce Pepin Cooperative Services Grant Application – Town of Clifton

To Whom It May Concern:

We are writing to you in support of the Pierce Pepin Cooperative Services Grant Application for the Town of Clifton project being submitted under the 2022 WI PSC Broadband Grant program. Our area is in desperate need of reliable high-speed internet service.

Pierce Pepin Cooperative Services has worked closely with the Town of Clifton to ensure that every resident has access to their fiber optic network. The proposed grant will bring service to the remaining 650 homes that have been left without service by other internet providers. The Town of Clifton has supported this by contributing \$220,000.00 to ensure this project is completed.

We have a small distribution business that we run out of our home office and we often care for our grandchildren from our home, (all of whom need to do online learning at times), both endeavors require reliable internet service.

We cordially ask you to approve the application that is being submitted by Pierce Pepin Cooperative Services and fund this project.

Sincerely,

Michael Manteufel Deborah Manteufel Ms. Cupp,

I am contacting you to add my support for providing broadband internet access to Clifton. I moved here about 9 years ago and was dismayed to find that the best available access was DSL. It was almost a deal breaker on the purchase of the home but I was certain that it would not be long before better access would be available. Boy was I wrong. Nearly a decade later it still takes nearly an hour to upload mechanical design files that should take less than 10 minutes. This has made my work much more time consuming and difficult for me than nearly all of my peers and prevented me from expanding my business.

I look forward to that changing in 2022 due to the efforts of Pierce-Pepin cooperative. Thank you from the bottom of my heart.

And please let me know if there is anything I can do personally to assist in this effort.

Sincerely, Dana Linscott From: Jo Cernohous < <a href="mailto:rfcerny@gmail.com">rfcerny@gmail.com</a>>
Sent: Thursday, October 28, 2021 11:55 AM

To: info@swiftcurrent.coop

**Subject:** Broadband to Clifton Township

Hello Ms. Cupp,

I am writing as I would like to advocate for broadband to my area of Clifton Township in Pierce County. My husband and I live in an area where there are MANY homes and we are all in desperate need of better internet access here. My husband and I both work from home per a mandate from our employer and the best we have currently is to work off of a hotspot in our home. It gets us by, but is very limiting and spendy. Anything you can do to help us get Swift Current service to our area will be so greatly appreciated!

Sincerely, Jo Cernohous
********
Jo Cernohous

Thank you for your attention to this matter.

From: Elaine Baumann < <a href="mailto:elainebaumann1@gmail.com">elainebaumann1@gmail.com</a>>

Sent: Thursday, October 28, 2021 2:00 PM

To: info@swiftcurrent.coop

Subject: Status of high speed internet in Clifton Township

Dear Brooke,

My husband and I are residents of Clifton Township (N8416 1090th Street) on the north side of the Kinni River. During the Covid lockdown both my husband and I worked from home. We quickly upgraded our satellite internet to the best we could get, which was still slow, and during rain and snow events, undependable. It was very frustrating to us.

We have heard from Robb Scott that Pierce Pepin has received grants to install fiber internet and we want to voice our strong support for all households in Clifton to be included in the upgrades as we know many other families who have the same challenges we still face, despite paying nearly \$200 per month for slow and undependagel satellite service.

I look forward to hearing more about the availability of high speed fiber internet in our area.

Drs. Elaine and Larry Baumann N8416 1090th Street Clifton Township River Falls, WI From: jim < <a href="mailto:com">conteraj@hotmail.com</a>>

Sent: Thursday, October 28, 2021 12:33 PM

To: info@swiftcurrent.coop

Subject: High speed Internet west of County F in Clifton

Brook.

I am just writing to you to again put in a plea for high-speed Internet to our area. I live west of County F, just north of Kinnickinnic State Park. This is a heavily populated development around the St. Croix River, none of whom have access to high-speed Internet. Many of us do a lot of work from home and have a need for some thing that is reliable. There are many days when my Internet speed is 10 mbps or less. If two people are using the Internet at the same time it can be frustrating. This is just for the most basic use of the Internet.

Certainly with the amount of families that are in our neighborhood, it would be a no brainer to bring in this service. I hope that we will be included in this project in the near future. My address is W12325 852nd Ave. in the township of Clifton.

Thanks for reading this. I hope we get some traction on this issue.

Jim Conterato